

GRAIN DEALERS' JOURNAL

Devoted to the construction and operation of better grain handling plants.

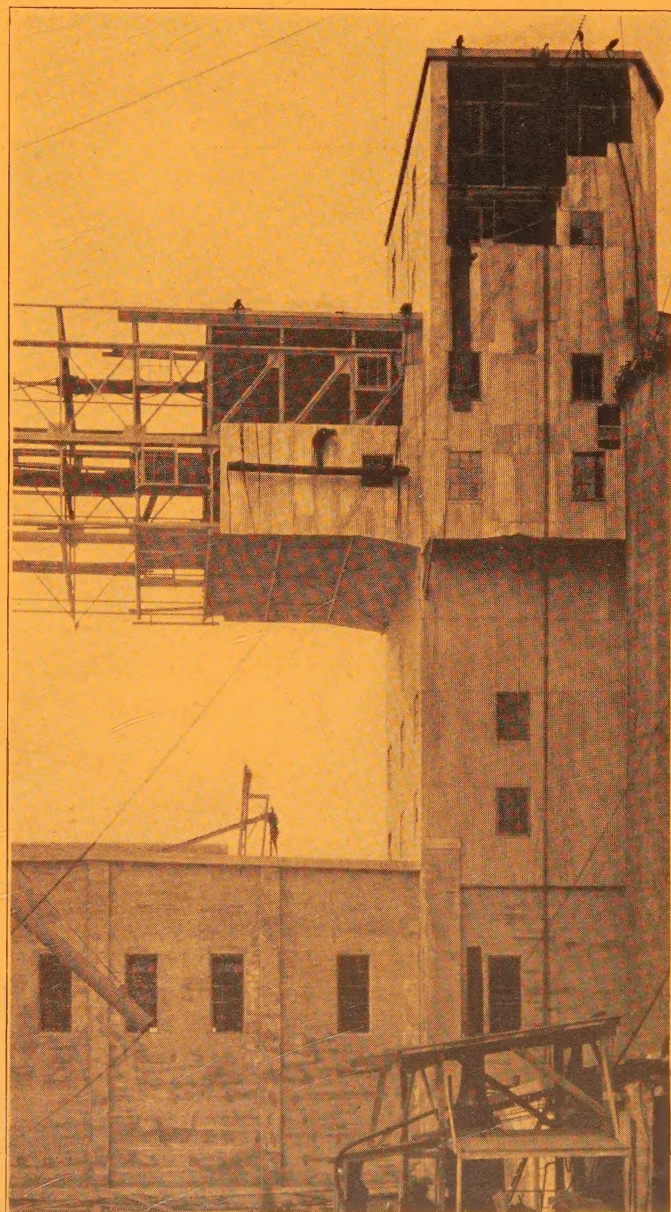
45% Waste.

Out of 1,083 fire losses sustained during the 19 years ending Dec. 31, 1921, by the Grain Dealers' National Mutual Fire Insurance Co., 267 are known to have been caused by lightning, 122 by locomotive sparks, 99 by exposure. In other words, 45% of the elevator fires credited to known causes could have been prevented thru the standard equipment of the plants burned with iron siding and roofing.

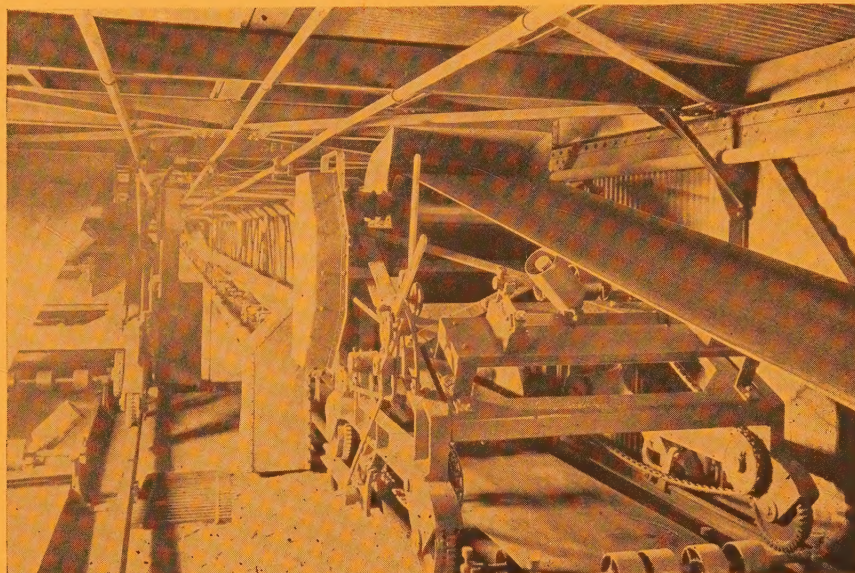
Inasmuch as 12.37% of this company's fire losses was credited to unknown causes, and the losses of the company are but a small percentage of the total fire losses on grain handling plants, it is easy to discern that the owners of grain handling plants paid an enormous cost for neglecting to protect their property with fire resistive roofing and siding.

A perusal of this number should give readers many helpful hints on the prevention of this waste.

Siding the Conveyor Tower and Galleries of the Northern Central Elevator, Baltimore, Md.



WEBSTER Grain Elevator Equipment



We could not manufacture successful conveyors, elevators, marine legs, and so on, unless a thorough understanding of grain elevator problems and practices enabled us to design each unit to perform its duty efficiently, economically, and in perfect harmony with the installation as a whole.

Each problem submitted to our engineering department is carefully studied by men whose wide experience in grain elevator work insures a design which embodies the best and latest in present day practice properly, adapted to the given conditions.

THE WEBSTER MFG. COMPANY
4500-4560 CORTLAND ST., CHICAGO

Factories-Tiffin, O. and Chicago - Sales Offices in Principal Cities

Directory of the Grain Trade

In Organized Markets Only Members of the Local Grain Exchange Will Be Listed

HAVING YOUR name in this directory will introduce you to many old and new firms during the year, whom you do not know or could not meet in any other way. Many new concerns are looking for connections, seeking an outlet or an inlet, possibly in your territory. It is certain that they turn to this recognized Directory, and act upon the suggestions it gives them.

AMARILLO, TEXAS.

Early Grain & Elevtr. Co., wholesale grain.*
Stone & Co., Lester, wholesale grain.*

ATCHISON, KANS.

Moore-Lawless Grain Co., consgts., futures, pvt. wires.*

ATLANTA, GA.

Commercial Exchange Members.

Haym & Sims, successors to
Green & Son, J., wholesale brokers, grain, hay.*

BALTIMORE, MD.

Chamber of Commerce Members.

Baltimore Grain Co., grain receivers, exporters.*
Dennis & Co., grain merchants.*
England & Co., Inc., Chas., grain, hay.*
Fahey & Co., John T., grain receivers and exporters.*
Gill & Fisher, receivers and shippers.*
Hammond, Snyder & Co., Inc., receivers, exporters.*
Hax & Co., G. A., grain, hay, seeds.*
Jones & Co., H. C., receivers, shippers, exporters.*
Lederer Bros., grain receivers.*
Robinson & Jackson, grain commission merchants.*
Steen & Bro., E., grain receivers and exporters.*

BEAVER, OKLA.

Horne Grain Co., Texas wheat, barley, milo.

BIRMINGHAM, ALA.

Montgomery Brokerage Co., grain, gr. pdts., hay, mdse.
Western Grain Co., mfrs. mxd. feed, crn. meal, grits.*

BLOOMINGTON, ILL.

Hasenwinkle Grain Co., brokers of country grain.

BOSTON, MASS.

Chamber of Commerce Members.

Benzaquin, Matthew D., grain brokerage commission.*

BUFFALO, N. Y.

Corn Exchange Members.

Armour Grain Co., grain merchants.*
Burr's Grain Co., grain commission.*
Churchill Grain & Seed Co., receivers, shippers.*
Davis, Inc., A. C., grain.*
Doorty-Ellsworth Co., Inc., brokerage commission.*
Electric Grain Elevator Co., consignments.*
Globe Grain Co., receivers & shippers.*
Harold, A. W., grain, barley a specialty.*
Lewis Grain Corp., receivers & shippers.*
McConnell Grain Corporation, commission merchants.*
McKilien, Inc., J. G., receivers and shippers.*
Pratt & Co., receivers, shippers of grain.*
Ratcliffe, S. M., commission merchant.*
Seymour-Wood Grain Co., consignments.*
Sunset Grain & Feed Co., grain & feed.*
Taylor & Bourneque Co., grain merchants.*
Traders & Producers Supply Co., millfeeds a specialty.*
Townsend Ward Co., The, consignments.*
Watkins Grain Co., consignments.*
Whitney & Gibson, consignments.*

CAIRO, ILL.

Board of Trade Members.

Cairo Grain Commission Co., consignments.*
Halliday Elevator Co., grain dealers.*
Lynch Grain Co., grain dealers.*
Thistlewood & Co., grain and hay.*

CARROLLTON, MO.

Claiborne Commission Co., commission merchants.*

CEDAR RAPIDS, IOWA.

Cedar Rapids Grain Co., corn and oats.*
Gifford Grain Co., grain and grain products.*
King Wilder Grain Co., grain shippers.*

CHATTANOOGA, TENN.

Board of Trade Members.

Hood Feed Co., flour, feeds, field seeds.

CHICAGO, ILL.

Board of Trade Members.

Anderson & Co., W. P., grain commission merchants.*
Armour Grain Co., grain buyers.*
Bailey & Co., E. W., grain commission merchants.*
Bartlett-Frazier Co., grain merchants.*
Brennan & Co., John E., grain commission merchants.*
Carrhart Code Harwood Co., grain commission.*
Dole & Co., J. H., grain and seeds.*

CHICAGO, ILL., (Continued).

Freeman & Co., Henry H., grain, hay, straw.
Gerstenberg & Co., commission merchants.*
Harris, Winthrop & Co., grain commission.*
Hitch & Carder, commission merchants.*
Holt & Co., Lowell, commission, grain and seeds.*
Lamson Bros. & Co., consignments solicited.*
Leland & Co., E. F., grain and seeds.*
McKenna & Dickey, commission merchants.*
Mumford & Co., W. R., grain, hay, millstuffs.*
Norris Grain Co., grain merchants.*
Paynter, H. M., grain and field seeds.*
Pope & Eckhardt Co., grain and seeds.*
Press & Co., W. G., grain, provisions, stocks, etc.*
Requa Bros., wheat a specialty.*
Rumsey & Co., grain commission.*
Sawyers Grain Co., consignments.*
Schiffin & Co., P. H., commission.*
Shaffer Grain Co., J. C., grain merchants.*
Somers, Jones & Co., grain and field seeds.*
Udipke Grain Co., consignments.*

CINCINNATI, O.

Grain & Hay Exchange Members.

Early & Daniel Co., grain, hay, feed.*
Gale Grain Co., The A. C., receivers & shippers.*

CLEVELAND, O.

Grain & Hay Exchange Members.

Bailey, E. I., grain and millfeed.*
Cleveland Grain & Milling Co., The, recvrs. & shprs.*
Gates Elevator Co., The, receivers and shippers.*
Sheets Elevator Co., The, grain, hay, straw.*
Shepard, Clark & Co., grain merchants.*
Strauss & Co., H. M., receivers, shippers hay & grain.*

COLBY, KANSAS.

Harris & Haynes, wholesale—brokers—grain.

CLOVIS, N. MEX.

Western Elvtr. Co., The, recvrs.-shprs., hdqtrs kafir-milo.*

DAVENPORT, IOWA.

Davenport Elevator Co., receivers and shippers.*

DALHART, TEXAS.

Kinard Grain Co., J. C., wholesale grain & hay.*

DECATUR, ALA.

Lyle-Taylor Grain Co., whlse. grain, hay, feeds.

DECATUR, ILL.

Baldwin & Co., H. I., grain dealers.*

DENVER, COLO.

Grain Exchange Members.

Ady & Crowe Merc. Co., The, grain and hay.*
Ashcraft Grain Co., S. B., wholesale grain.*
Conley-Ross Grain Co., The, grain and beans.*
Crescent Flour Mills Co., The, merchant millers.*
Denver Elevator, wholesale grain, flour, millfeed.*
Farmers Elevator Co., The, H. F. Rover, Mgr.*
Gallagher Grain Co., grain merchants.*
Houlton Grain Co., wholesale grain.*
Kellogg Grain Co., O. M., receivers and shippers.*
McCaull-Dinsmore Co., wholesaler and commission.*
Moore-Lawless Grain Co., private wires to all markets.*
PHELPS Grain Co., T. D., wholesale grain.*
Rocky Mountain Grain Co., export and domestic grain.*
Summit Grain Co., wheat, corn, oats, rye, barley.*

DES MOINES, IOWA.

Board of Trade Members.

Des Moines Elvtr. & Gr. Co., oats a specialty.*
Iowa Corn Products Co., receivers and shippers.*
Marshall Hall Grain Co., grain commission.*
Taylor & Patton Co., corn and oats.*

DETROIT, MICH.

Board of Trade Members.

Dumont, Roberts & Co., receivers, shippers.*
Huston, C. R., grain and hay.*
Lapham & Co., J. S., receivers & shippers.*
Lichterberg & Son, oats, corn, hay, straw.*
Simmons & Co., F. J., grain and hay.*
Swift Grain Co., consign or ask for bid.*

FORT WORTH, TEX.

Grain and Cotton Exchange Members.

Dorsey Grain Co., merchants—commission, consignments.*
Transit Grain & Com. Co., consignments, brokerage.*

GREAT FALLS, MONTANA.

Barkemeyer Grain & Seed Co., grain dealers.*

GREENVILLE, O.

Grubbs Grain Co., E. A., track buyers.*

HAMBURG, IOWA.

Sullivan & McBride S. & G. Co., red cob fodder corn.*

HASTINGS, NEBR.

Koehler-Twidale Elevator Co., grain dealers.*

HATTIESBURG, MISS.

Merchants Grocery Co., whlse. grocers, grain, fd., dr.

HOUSTON, TEX.

Gulf Grain Co., grain, hay, millfeed.*
Rothschild Co., S., grain, c/s products, rice b/p.*

HUTCHINSON, KANS.

Board of Trade Members.

Central Grain Co., The, buyers for mills.*
Farmers Co-op. Com. Co., commission merchants.*
Goffe & Carkner, private wire.*
Hayes Grain Co., John, grain merchants.*
Hutchinson Grain Co., grain merchants.*
McClure Grain Co., J. B., buyers and sellers.*
Midwest Grain Co., The, shippers.*
Moore Grain Co., consignments—buyers of grain.*
Producers Grain Co., The, milling wheat.*
Southwest Grain Co., receivers and shippers.*
Union Grain Co., grain merchants.*
Vanderslice-Lynds Co., grain commission merchants.*

INDIANAPOLIS, IND.

Board of Trade Members.

Anderson & Mercer, grain commission & consignments.*
Boyd Grain Co., Bert A., strictly brokerage & com.*
Cleveland Grain & Milling Co., grain commission.*
Hayward-Rich Grain Co., grain commission.*
Steinhart Grain Co., commission and brokerage.*
Witt, Frank A., grain commission and brokerage.*

JACKSON, MICH.

Bartlett & Co., J. E., salvage grain buyers & sellers.*
Wagner-White Co., track buyers-sellers, grain-feed.

JACKSON, MISS.

Field Co., Robt., succ. to P. L. Brittain Co.*
Royal Feed & Mfg. Co., mixed feed mfrs.*

KANSAS CITY, MO.

Board of Trade Members.

Christopher & Co., B. C., kafir, feterita, milo.*
Claiborne Commission Co., commission merchants.*
Croysdale Grain Co., commission merchants.*
Davis Grain Co., A. C., grain commission.*
Denton Kuhn Grain Co., consignments.*
Ernst Davis Grain Co., commissions.*
Federal Grain Co., receivers, shippers.*
Frisco Elevators Co., grain merchants.*
Goffe & Carkner, grain commission.*
Hall Baker Grain Co., consignments.*
Lichtig & Co., H., kafir, milo, screenings.*
Logan Bros. Grain Co., receivers and shippers.*
McCoy-Thomas Grain Co., consignments-futures.*
Miller Grain Co., S. H., consignments.*
Moore-Lawless Grain Co., grain receivers.*
Moore-Seaver Grain Co., grain receivers.*
Norris Grain Co., grain merchants and exporters.*
Roehen Grain Co., E. E., consignments.*
Root Grain Co., consignments and futures.*
Scular Bishop Grain Co., receivers and shippers.*
Shannon Grain Co., consignments.*
Simonds, Shields, Lonsdale Grain Co., grain.*
Smith-Weekes Bkg. Co., grain broker.*
Thresher Grain Co., R. J., grain commission.*
Wilser Grain Co., consignments.*

LAWRENCE, KANS.

Underwood & Sons, J., grain, feed, seeds.

LIBERAL, KANS.

Light Grain & Mfg. Co., mill pdts., kafir, milo.*
Vickers Grain & Seed Co., grain and field seeds.*

LINCOLN, NEBR.

Grain Exchange Members.

Lincoln Grain Co., grain merchants.*

LITTLE ROCK, ARK.

Grain Exchange Members.

Cable & Stockton, hay, grain, feed.*
Farmer Wilson Co., brokers, hay, grain, mill feed.*
Gordy Co., C. L., grain brokr., hay, grain, mill feed.*
Wilson Co., John R., grain brokers.*

(Continued on next page.)

*Member Grain Dealers National Association.

Directory of the Grain Trade

In Organized Markets Only Members of the Local Grain Exchange Will Be Listed

LOUISVILLE, KY.

Board of Trade Members.

Bingham-Hewett Gr. Co., receivers-shippers of grain.*
Callahan & Sons, receivers and shippers of grain.*
Fruechtenicht, Henry, grain, feed, hay.*
Kentucky Public Elevator Co., storers and shippers.*
Verhoeff & Co., H., receivers and shippers.*
Zorn & Co., S., receivers and shippers.*

LYNCHBURG, VA.

Moon-Taylor Co. grain and hay brokers.

M'KINNEY, TEXAS.

Reinhart & Company, wheat, corn, oats, maize.*

MARSHALL, MO.

Claiborne Commission Co., commission merchants.*

MEMPHIS, TENN.

Merchants Exchange Members.

Davis & Andrews Co., grain, mixed feed.*

MILWAUKEE, WIS.

Chamber of Commerce Members.

Bacon Co., E. P., grain and seed.*
Bell Co., W. M., commission merchants.*
Blanchard Grain Co., "Always Dependable."*
Bush Grain Co., grain merchants.
Cargill Grain Co., grain and seeds.
Donahue-Stratton Co., dhrs. grain and feed.*
Flanley Grain Co., consignments solicited.
Frankie Grain Co., feeds, grain, hay.
Fraser-Smith Co., commission merchants.
Froodtert Gr. & Malting Co., grain commission.
Kamm Co., P. C., grain shippers.*
Lamson Bros. & Co., grain commission.
Milwaukee Grain Commission Co., grain commission.*
Rang & Co., Henry, commission merchants.
Runkel & Dadmun, grain commission merchants.*
Taylor & Bourneque Co., grain merchants.*
Uplike Grain Co., consignments solicited.*

MERIDIAN, MISS.

Board of Trade Members.

Lyon & Co., A. J., whse. gro., grain, feed.
Meyer Bros., wholesale groc., grain, feed.
Sturgis Co., grain dealers, mixed feed mfrs.*
Threefoot Bros. & Co., whse. grain, feed, dr., gro.*

MIDDLEPOINT, OHIO.

Pollock Grain Co., grain, hay, straw, ear corn.

MIDDLETOWN, CONN.

Meech & Stoddard, Inc., grain, feed, hay, flour.*

MINNEAPOLIS, MINN.

Chamber of Commerce Members.

Cargill Commission Co., grain commission.*
Cereal Grading Co., grain merchants.*
Hankinson & Co., H. L., grain commission.*
International Grain Co., grain merchants.*
Malmquist & Co., C. A., receivers & shippers.*
Marfield Grain Co., grain commission.*
McNeill Dinsmore Co., consignments solicited.*
Seidl, Frank J., all grains and feeds.*
Sheffield Elevator Co., shippers of grain.*
Sterling Grain Co., receivers and shippers, all grains.*
Van Dusen-Harrington Co., grain merchants.*

MOULTRIE, GA.

Delay, A. J., flour and grist mill.

NASHVILLE, TENN.

Grain Exchange Members.

Allen Grain Co., receivers and shippers.*
Allfeed Milling Co., feed manufacturers.
Kerr, S. S., receiver and shipper.*
Tennessee Grain Co., receivers and shippers.*
Tyner & Co., John A., receivers and shippers.*

NEW CASTLE, PA.

Hamilton Co., grain, feed, flour, hay, potatoes.

NEW ORLEANS, LA.

Board of Trade Members.

Anderson & Jackson, Inc., exporters of grain.*
Fox Co., C. B., exporters.*
Nathan, Edw., succr. to Nathan & Pettis, fwdg. agt.*
Rodd & Co., Chas. M., gr. brokers & fwdg. agents.*

NEW YORK CITY.

Produce Exchange Members.

Jones & Co., M. B., buyers—quote us.*
Knight & Company, commission merchants.*
Therrien, A. F., broker.

NORFOLK, VA.

Moon-Taylor Co., grain and hay brokers.

OKLAHOMA CITY, OKLA.

Grain Exchange Members.

Cherokee Grain Co., grain merchants.*
Conyers Grain Co., grain merchants.
Lang Grain Co., J. H., prompt and efficient service.*
Langenberg Bros. Grain Co., grain merchants.
Marshall Grain Co., grain, feed, seeds.*
Moore, George L., grain merchant.
Okla. City M. & E. Co., grain merchants, millers.*
Perkins Grain Co., W. L., brokers.*

OKLAHOMA CITY, OKLA., (Continued).

Scannell-Winters Grain Co., grain and feed.*
Stinnett Grain Co., grain merchants.*
Stowers Grain Co., W. E., commission merchants.*
Strader Alexander Co., grain, hay, feed.*
White Grain Co.*

OMAHA, NEBR.

Grain Exchange Members.

Butler Welsh Grain Co., grain merchants.*
Crowell Elevator Co., receivers, shippers.*
Holmquist Elevator Co., receivers and shippers.*
Maney Grain Co., The, consignments.*
Miller Wilson Grain Co., receivers and shippers.*
Roberts Grain Co., Geo. A., grain merchants.*
Stockham Grain Co., E., commission merchants.*
Trans-Mississippi Grain Co., receivers and shippers.*
Umed Grain Co., grain commission.
Uplike Grain Co., consignments.*

OTTAWA, KANS.

Ross Milling Co., The, millers, hard wheat flour.

PAMPA, TEXAS.

McMurtry Grain Co., L. C., wheat, kafir, milo.*

PEORIA, ILL.

Board of Trade Members.

Bartlett Co., S. C., grain commission.
Bowen Grain Co., H. D., receivers & shippers.
Cole Grain Co., Geo. W., receivers and shippers.*
Dewey & Sons, W. W., grain commission.*
Feltman Grain Co., C. H., grain commission.*
Harrison, Ward & Co., receivers & shippers.*
Lake Grain Co., grain commission.*
McFadden & Co., G. C., consignments.*
Miles, P. B. & C. C., grain commission.*
Mueller Grain Co., receivers and shippers.*
Shaffer Grain Co., J. C., receivers & shippers.*
Turner Hudnut Co., receivers and shippers.*
Tyng Grain Company, receivers and shippers.*

PHILADELPHIA, PA.

Commercial Exchange Members.

Delp Grain Co., E. E., grain and millfeeds.*
Dunwoody Co., Ezl., flour, grain, feed.*
Miller & Sons, L. F., grain, seeds, hay.*
Richardson Bros., grain, flour, millfeeds.*
Richardson, Geo. M., grain and feeds.*
Rogers & Co., E. L., hay, straw, grain, feed.*
Stites, A., Judson, grain and millfeed.*
Young & Co., S. H., wheat, corn, oats.

PITTSBURGH, PA.

Members Grain and Hay Exchange.

Allen & Co., H. S., grain and hay.*
Burson Grain Co., C. G., recvrs. shprs.-commission.*
Elwood & Co., R. D., hay and grain.*
Foster Co., C. A., grain merchants.
Geldel & Leubin, grain and hay.
Hardman & Daker, grain, hay, millfeed.*
Harper Grain Co., corn a specialty.*
Heck & Co., W. F., grain, hay, millfeed.*
McCague, Ltd., R. S., grain, hay.*
Rogers & Co., Geo. E., grain and hay.*
Smith & Co., J. W., grain merchants.*
Stewart & Co., Jesse C., grain and mill feed.*
Walton Co., Samuel, grain and hay.*

PONTIAC, ILL.

Balbach, Paul A., grain buyer, all markets.

PORTLAND, ORE.

Pacific Coast Elevator Co., grain.
Pacific Grain Co., grain exporters.*

PUEBLO, COLO.

McClelland McT'l I. & R. Co., grain, hay and feed.*

QUINTER, KANSAS.

Jones-Rogers Grain Co., brokers.

RICHMOND, VA.

Grain Exchange Members.

Beveridge & Co., S. T., grain, hay, feeds, seeds.

ROCHESTER, N. Y.

Dailey Bros., Inc., receivers and shippers.*

SAGINAW, MICH.

Saginaw Milling Co., flour, feed, hay, grain.*

SALINA, KANS.

Board of Trade Members.

Bossemeyer Grain Co., The Paul, grain merchants.*
Freeman Grain Co., receivers and shippers.
Hayes Grain Co., Always in the market.
Richter Grain Co., wheat, coarse grains & millfeed.*
Rickel, E. L., grain receiver and shipper.
Service Grain Co., grain, feed, grain products.*
Weber Flour Mills Corp., millers, exporters, grain dhrs.*

SALT LAKE CITY, UTAH.

Utah-Idaho Bkg. Co., whse. grain, hay, flour, feed.*

ST. JOSEPH, MO.

Grain Exchange Members.

Aunt Jemima Mills Co., A. J., hominy feed.
Button-Simmons Grain Co., grain commission.*
Claiborne Commission Co., commission merchants.*
Gordon Grain Co., grain commission.*
Marshall Hall Grain Co., consignments solicited.*
Yancey Grain Co., commission merchants.*

SAN ANTONIO, TEXAS

King, Douglas W., wheat, corn-brok., Texas R. Oats.*

ST. LOUIS, MO.

Merchants Exchange Members.

Annan Burg G. & M. Co., flour, grain, millfeed.*
Claiborne Commission Co., commission merchants.*
Dreyer Commission Co., feedstuffs, grain, seeds.*
Elmore Schultz Gr. Co., receivers and shippers grain.*
Goffe & Carkner Co., grain commission.*
Graham & Martin Grain Co., grain commission.*
Marshall Hall Grain Co., grain commissions.*
Langenberg Bros. Grain Co., grain commission.*
Morton & Co., grain commission.*
Nanson Commission Co., grain commission.*
Picker & Beardsley Com. Co., grain and grass seed.*
Toherman, Mackey & Co., grain, hay, seeds.*
Turner Grain Co., grain commission.

SEDALIA, MO.

Claiborne Commission Co., commission merchants.*

SIOUX CITY, IOWA.

Board of Trade Members.

Button Co., L. C., grain commission.*
McCaull Dinsmore Co., commission.*
Terminal Grain Corp., receivers & shippers.*
Rumsey & Co., receivers of consignments.*
Western Terminal Elevator Co., receivers and shippers.*

SIOUX FALLS, S. D.

Burke Grain Co., grain merchants.

SPRINGFIELD, MO.

Claiborne Commission Co., commission merchants.*

STERLING, COLO.

Moore, James A., grain dealer.

SUPERIOR, NEBR.

Bossemeyer Bros. Terminal Elevator.*
Elliott & Myers, grain merchants.*
Superior Terminal Elvtr. Co., grain, corn products.

TAMPA, FLA.

Bonacker Bros., brokers, grain, hay, feed, flour.*

THOMASVILLE, GA.

Burch & Son, W. H., corn millers.

TOLEDO, OHIO.

Produce Exchange Members.

De Vore & Co., H. W., grain and seeds.*
King & Co., O. A., grain and seeds.*
Morehouse & Co., wholesale grain and seeds.
Southworth & Co., grain and seeds.*
Wickenhiser & Co., John, grain receivers, shippers.*
Young Grain Co., grain.*

TOPEKA, KANS.

Derby Grain Co., wheat, corn, oats, and millfeed.*
Golden Belt Grain & Elvtr. Co., The, recvrs. & shprs.*
Topeka Grain Co., wheat, corn, oats, mill & ctn. feed.*

TULIA, TEXAS.

Cowan Grain Co., W. C., wheat, oats, maize, kafir.*

TURON, KANS.

Turon Mill & Elvtr. Co., corn, wheat, millfeed, flour.

WASHINGTON, D. C.

Wilkins-Rogers Mfg. Co., Inc., receivers and shippers.*

WICHITA, KANS.

Board of Trade Members.

Baker-Evans Grain Co., milling and export wheat.*
Beyer Grain Co., consignments and mill orders.*
Blood Grain Co., I. H., consignments, mill orders.*
Claiborne Commission Co., commission merchants.*
Clark Grain Co., C. M., all kinds grain and feed.*
Craig Grain Co., J. W., consignments and mill orders.*
Foot Grain Co., consignments.
Hall Baker Grain Co., exporters.
Hayes Grain Co., John, Okla.-Kan., wheat for mills.
Hipple Grain Co., consignments.
Kansas Flour Mills Co., receivers and shippers.
Kramer Grain Co., receivers and shippers.
Linton-Christy Grain Co., strictly brokerage & comm.*
Norris Grain Co., exporters.
Raymond Grain Co., consignments.*
Simonds-Shields-Lonsdale Gr. Co., exporters.
Smith-McLinden Grain Co., milling and export wheat.
Stevens-Scott Grain Co., receivers and shippers.*
Strong Trading Co., wholesale grain and feed.*
Terminal Elevators, exporters.
Wallingford Bros., receivers and shippers.*
Wichita Flour Mills Co., millers and grain merchants.
Wichita Grain Co., receivers and shippers.*
Wichita Terminal Elev. Co., general elevator business.*

WICHITA FALLS, TEXAS.

Mytinger Grain Co., J. C., grain, feed, seeds.*

WINCHESTER, IND.

Goodrich Bros. Hay & Grain Co., whlrs. gr. and seeds.*

WINFIELD, KANS.

Daves & Daves, red mlg. wheat, mill feed.*

WOODWARD, OKLA.

Sharon Grain Co., wholesale grain.

*Member Grain Dealers National Association.

Buffalo

The Active Market

ALL Western Roads converge here, either directly, or through their connections.

ALL Eastern Roads are available, through Eastern trunk lines and connections.

ITS weighing and inspection departments are unexcelled for promptness and efficiency.

ITS elevator facilities are vastly superior to those of any market East of Chicago.

SHIP to any of the firms whose names appear below. All are reliable.

Lewis Grain Corporation,
Ship Buffalo—Consign to Lewis

Whitney & Gibson,
Consignments. Our Specialty,
Wheat

Taylor & Bournique Co.,
Grain Commission

Globe Grain Co., Inc.,
Receivers and Shippers

Sunset Feed & Grain Co., Inc.,
Receivers and Shippers

Electric Grain Elevator Co., The
Consignments

Harold, A. W.,
Grain—Barley a Specialty

Watkins Grain Co.,
Consignments

McConnell Grain Corporation,
Commission Merchants

Seymour-Wood Grain Co.,
Consignments

Ratcliffe, S. M.,
Commission Merchant

The Townsend-Ward Co.,
Grain Merchandising and
Consignments

Armour Grain Co.,
Grain Merchants

McKillen, Inc., J. G.,
Receivers and Shippers

Davis, Inc., A. C.,
Grain Commission

Pratt & Co.,
Receivers and Shippers

Burns Grain Co.,
Grain Commission

Churchill Grain & Seed Co., The
Receivers and Shippers



Chamber of Commerce
Members**BALTIMORE**Chamber of Commerce
Members

Receivers, Shippers, Exporters

H. C. JONES & CO.
BALTIMORE
Grain and Hay
Consignments or Direct Purchases**CONSIGNMENTS A SPECIALTY**
JOHN T. FAHEY & CO.
Commission Merchants
Grain Receivers and Shippers
In the Market every day
Remember us on Rye BALTIMORE, MD.

Established 1900

G. A. HAX & CO.
COMMISSION
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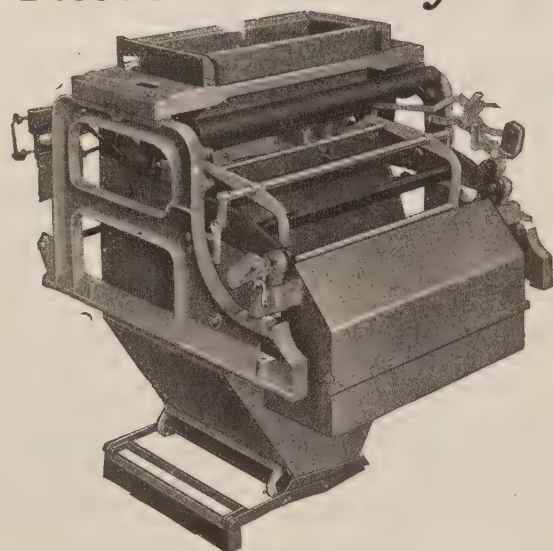
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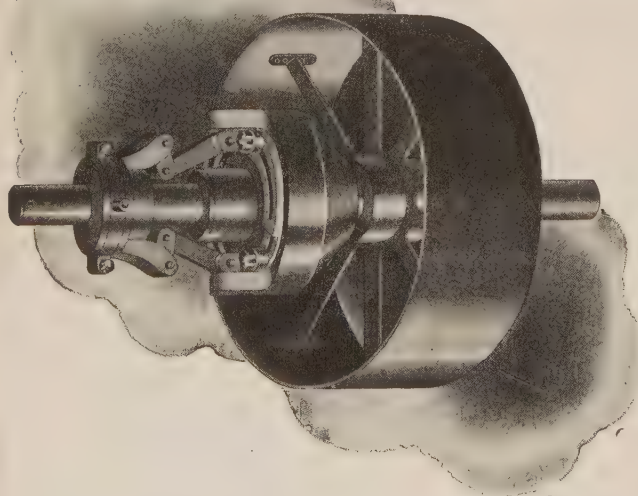
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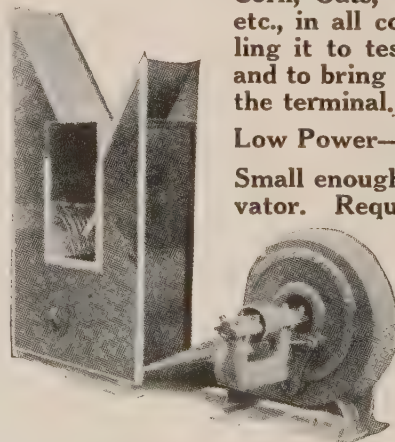
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Corn, Oats, Wheat, Barley,
etc., in all conditions, enab-
ling it to test higher grade
and to bring better prices at
the terminal.

Low Power—High Capacity.

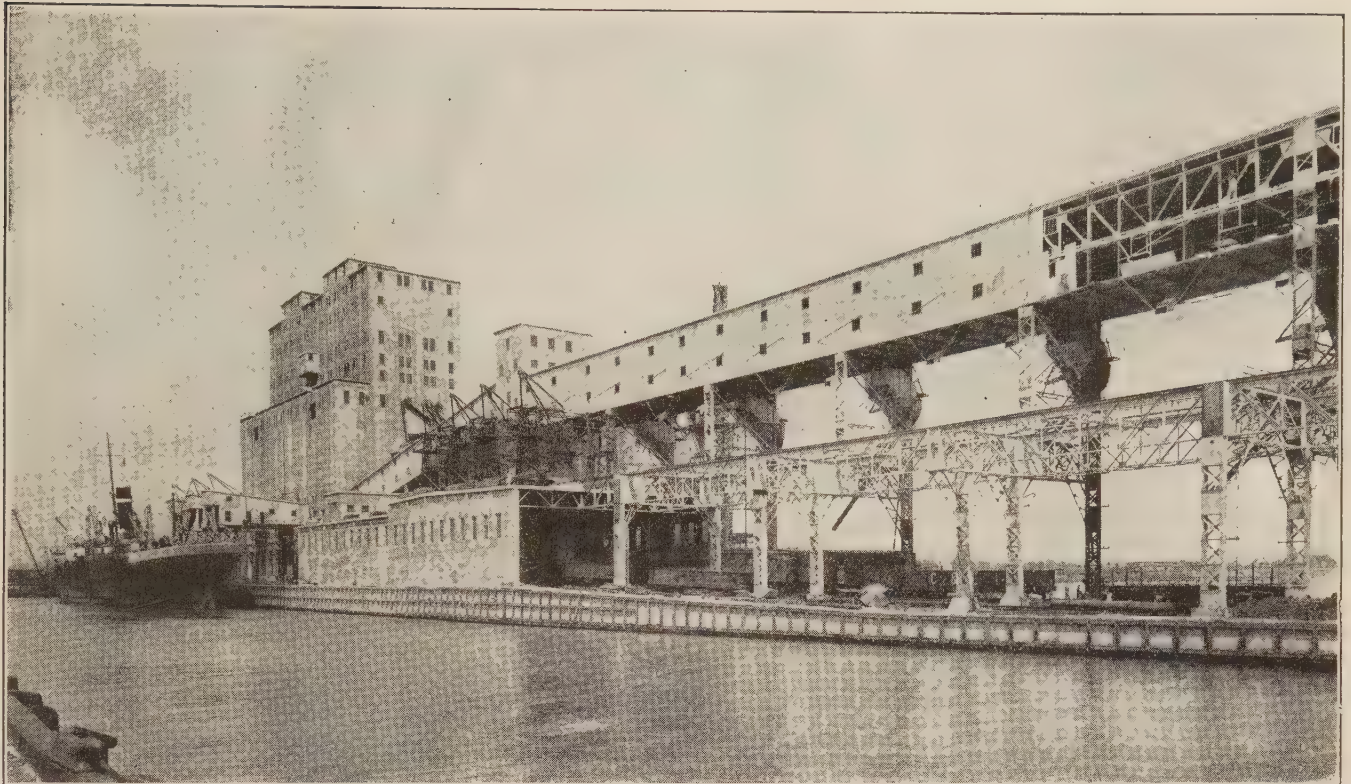
Small enough to fit any ele-
vator. Requires very little
space—Easy to
install.



CIRCULAR, DESCRIBING, SHOWING TESTS AND COST
OF OPERATION SENT ON REQUEST.

WELLER MFG. CO.
CHICAGO

SALES OFFICES:
NEW YORK BOSTON BALTIMORE PITTSBURGH
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Demurrage on Cars and Boats

Did you ever have a leg belt go down in the boot?

You know what happened then—real trouble as well as costly demurrage.

Dependability is what you need in a leg belt—and dependability was never gotten by skimping and saving.

In "LEGRAIN" Goodrich engineers have designed a dependable belt developed for just this ser-

vice, correct in construction and in addition embodying aging stamina which secures permanent efficiency.

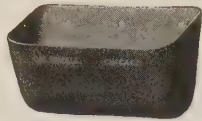
In Minneapolis four years ago 438 feet of "LEGRAIN" 28 inches wide, 8 ply, was put on one of the biggest elevators existent and not only corroborated the good judgment of the operator but has ever since worked uninterruptedly and efficiently and today looks as good as new.

THE B. F. GOODRICH RUBBER COMPANY

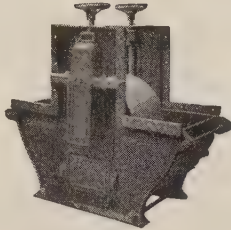
Akron, Ohio

Goodrich

"Legrain" BELTS



CALDWELL SERVICE



HALF a million dollars worth of well selected stock, constantly maintained, and an organization keyed up to the theory that plant efficiency is measured by the number of orders shipped on the day of receipt, accounts for Caldwell service.

If you need gears, sprockets, transmission machinery, Helicoid Conveyor or any of the Caldwell specialties promptly, wire Caldwell, or call up the nearest Link-Belt office. You will find Link-Belt Company offices in all principal cities.



H. W. CALDWELL & SON CO.

LINK-BELT COMPANY, OWNER

CHICAGO, 17th Street and Western Avenue

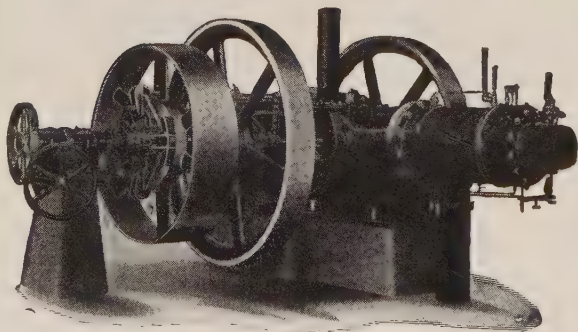
DALLAS, TEXAS, 709 Main Street

NEW YORK, Woolworth Bldg.



CALDWELL

MUNCIE *Heavy Duty* Oil Engine



USE CRUDE OIL AND FUEL OIL

Reduce Your Fuel Bill 80 Percent
Sizes 10 to 250 H. P.

MUNCIE OIL ENGINE CO.
MUNCIE, IND., U.S.A.

Branches: Atlanta, Ga. Dallas, Tex. Export Dept.
36-40 W. 60th St., N. Y. City

Dust Collectors



alone do
not prevent
explosions
in Eleva-
tors, but

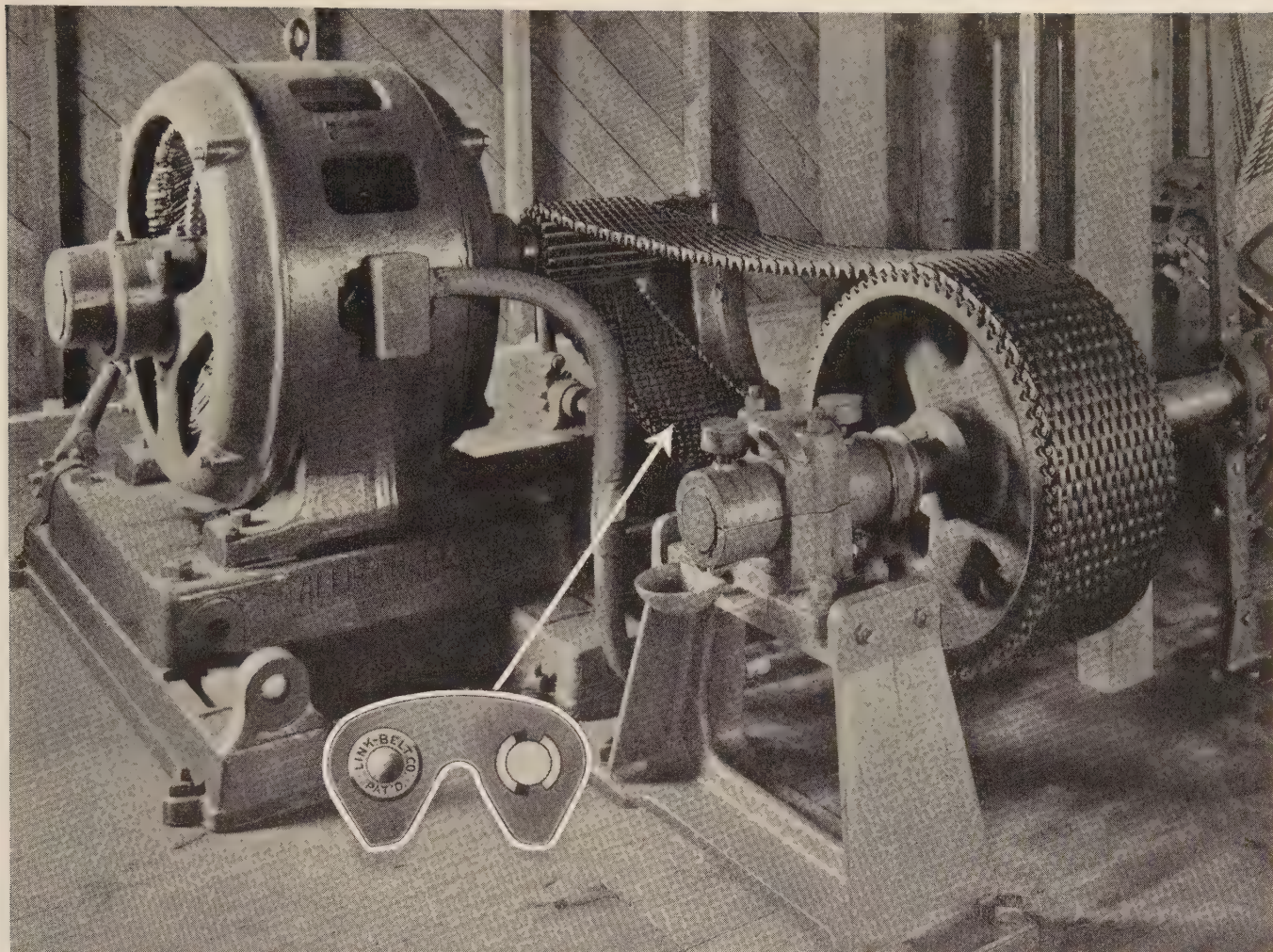
DAY

Dust Col-
lecting Sys-
tems do
when prop-
erly in-
stalled.

The Day Company

1006 Lyndale Avenue N.

Minneapolis, Minn.



Link-Belt Silent Chain

The Efficient Drive for Grain Handling Plants

The Link-Belt Silent Chain Drive transmits the power of the motor without slip, and is 98.2% efficient on actual test. It is flexible as a belt—positive as a gear—more efficient than either. It is the ideal drive for grain handling plants.

The use of the Link-Belt Silent Chain Drive simplifies the power transmission problem. Silent chain operates on short centers and can therefore be encased in an oil-retaining, dust-

proof casing, requiring a minimum of attention for lubrication and care. The result is a smooth, quiet drive, having decided advantages over the older forms of power transmission.

Our experienced engineers can help you get better results from your power transmission equipment. Their advice is yours for the asking. Send for our specialist on grain elevator and flour mill transmissions. Get our book No. 309.

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Huntington, W. Va. . .

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49 Federal St.
1501 Park Bldg.
Central National Bank Bldg.
547 Eliot Square
2nd National Bank Bldg.
Robson-Prichard Bldg.

LINK-BELT COMPANY

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Detroit . . . 4210 Woodward Ave.
Kansas City, Mo. . . 306 Elmhurst Bldg.
Seattle . . . 820 First Ave., S.
Portland, Ore. . . First and Stark Sts.
San Francisco . . . 168 Second St.
Los Angeles . . . 163 N. Los Angeles St.

In Canada Canadian Link-Belt Co., Ltd., Toronto and Montreal

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Louisville, Ky. . . Frederick Wehle, Starks Bldg.
New Orleans . . . C. O. Hinz, 504 Carondelet Bldg.
Birmingham, Ala. . . S.L. Morrow, 720 Brown-Marx Bldg.
Charlotte, N. C. . . J. S. Cothran, Com'l Bank Bldg.

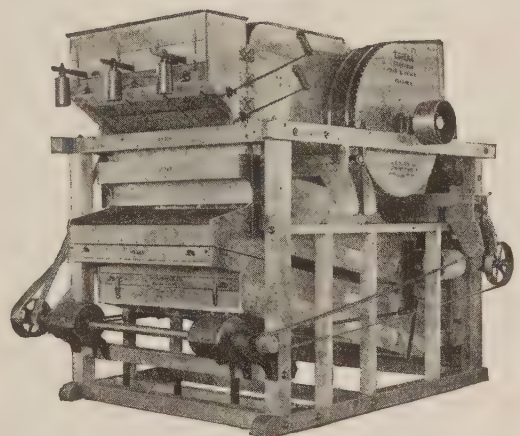
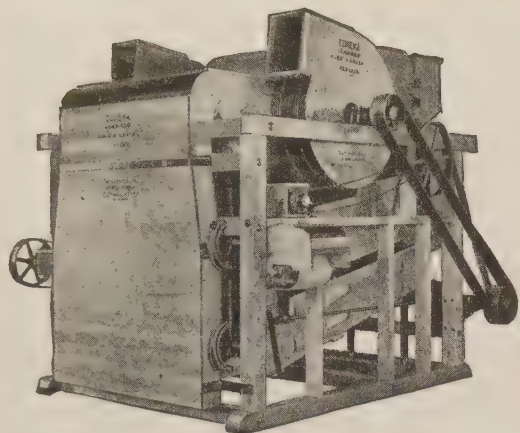
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NEW YORK, Woolworth Bldg.

DALLAS, TEXAS, 709 Main St.

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Another
“EUREKA”
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Is our combined machine for cleaning both
CORN and SMALL GRAINS

In this “EUREKA,” mechanical excellence and practical utility go hand in hand. Here our engineering staff has scored a worth-while triumph—the first Combined machine without a drawback. You need this up-to-date, accessible, light-powered profit producer.

Our profusely illustrated
 Bulletin No. 82 is yours for
 the asking—write for it.



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European Branch: S. Howes, 64 Mark Lane, London, Eng.



Fabricated Steel Products

We specialize on FABRICATED STEEL PRODUCTS and are equipped to furnish steel plate products such as tanks, hoppers, stacks, conveyors, chutes, pipe, elevator legs, coal mine equipment, cement and concrete sheet steel forms promptly. Let us estimate on your requirements.

Corrugated Sheets Erected

We are specialists in furnishing and erecting ROOFING & SIDING of galvanized, painted or zinc sheets, corrugated or formed. Our mechanics are experts—they know how. Let us figure on your erection, no matter where located.

Our complete stock of galvanized, black, blue annealed sheet steel and zinc enable us to give immediate attention to all orders and inquiries received.

The Sykes Company
 930 West 19th Place, Chicago, Ill.



The “Climax” Scoop Truck

Can easily add **Ten Cents an Hour** to the value of a man's time who uses it in unloading Coal or Grain from box cars.

Hence, in two weeks' use the Scoop Truck will pay for itself and cost you nothing for its use thereafter.

It will last for years and save the wearing out of a dozen common scoops in doing a like amount of work.

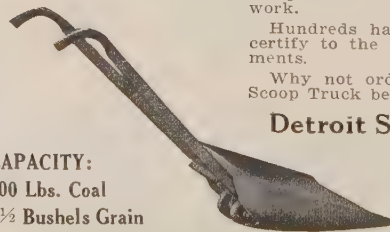
Hundreds have tried it and will certify to the truth of these statements.

Why not order now and let the Scoop Truck be giving itself to you?

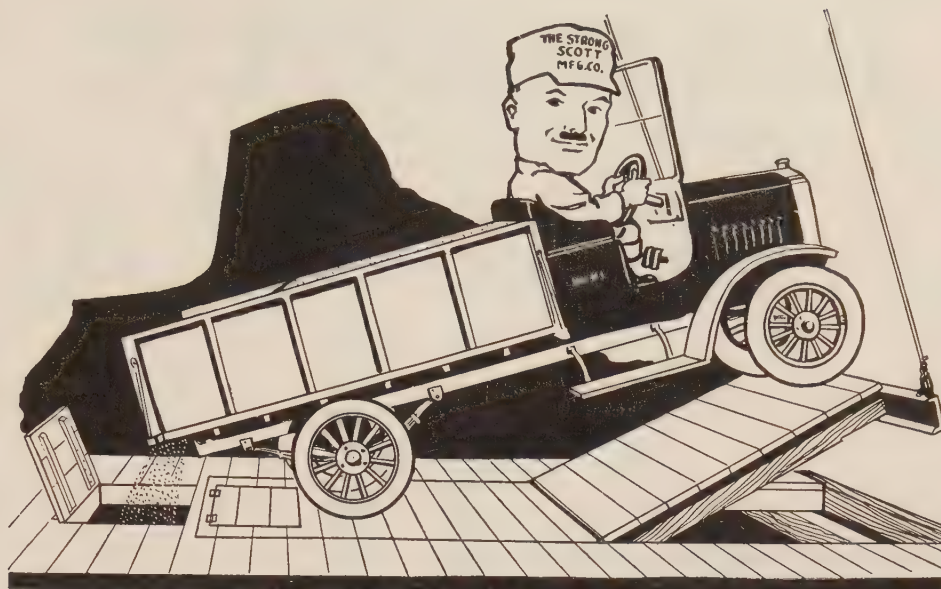
Detroit Scoop Truck Co.

Detroit, Michigan

CAPACITY:
 200 Lbs. Coal
 2½ Bushels Grain



Patented



Every Good Feature that Should be
in a Dump is in this

BIRD AUTO-TRUCK DUMP

INVESTIGATE all the other truck dumps on the market—learn about their good features—then let us show you the Bird Dump and in it you will find every good feature of all other dumps and a **few more.**

This may be a strong claim but the Bird Dump in actual operation has proved every claim ever made for it.

The Bird Auto-Truck Dump is so simple in construction that most elevators make their own installation. There is no complicated under-pit work, making it possible to install a "Bird" in old houses with very shallow pits. The price of the "Bird" is very low at the start and it will give 100% service year after year with practically no upkeep expense.

If your house needs a new dump, find out about the "Bird" before you go any further.

The Strong - Scott Mfg. Co.

"Everything for Every Mill and Elevator"

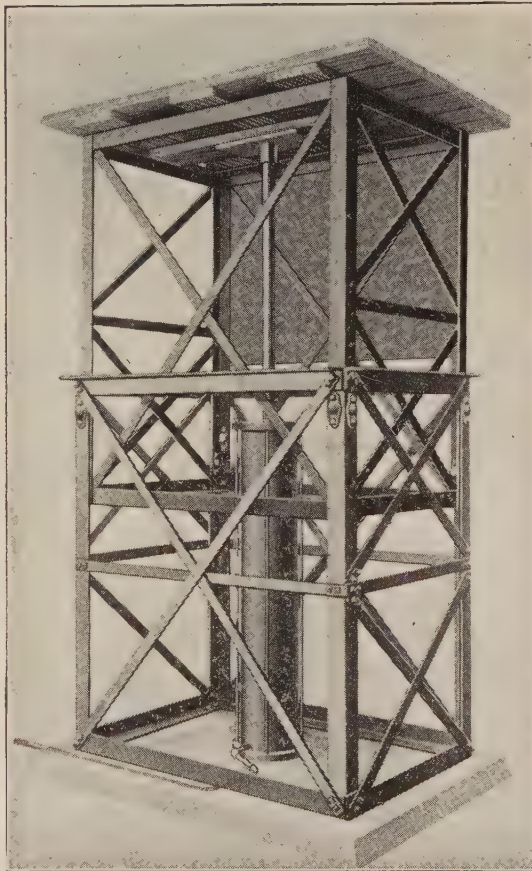
Minneapolis, Minn.

Great Falls, Mont.

Kewanee

All Steel Truck Lift

The only ball bearing Lift made



Between the frame work of the inside structure and the frame of the outside structure, and strongly caged into the corner angle posts of the outside structure, are high grade **ball bearings**—the same quality bearings as used by automobile and truck manufacturers. As the inside frame moves up and down it rolls easily and **smoothly** upon these steel ball bearings.

The Lift can't stick. It slides up and down easily. And it is **all steel** so it can't warp.

Less air is required to raise and lower the Kewanee. So one charging of your air tank with compressed air will raise and lower more loads than with any other Truck Lift.

Sold and installed by most all reliable elevator contractors. If your elevator contractor does not have blue prints and prices, write us direct.

Kewanee Implement Co.
521 Commercial St., Kewanee, Ill.

Tell me about the Kewanee All Steel Truck Lift, which never gets out of order. I understand this will not obligate me in any way.

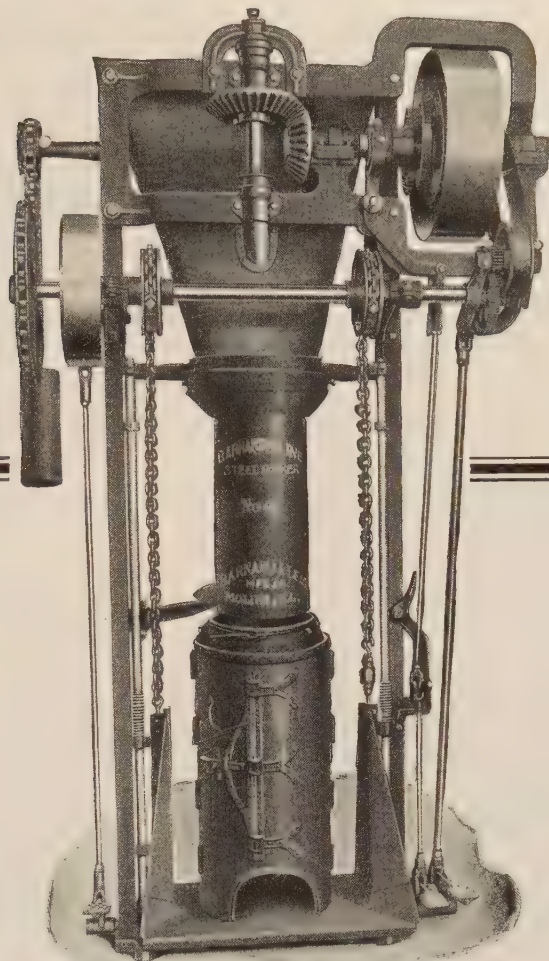
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Address

Kewanee Implement Co.

Kewanee, Illinois

Southwestern Distributors:
Fairbanks, Morse & Co., Kansas City, Mo.



BARNARD-MOLINE STEEL PACKER

For Packing Feeds of All Kinds, Barley or Oat Hulls, Grits, Etc.

Has heavy auger shaft and double expansion driving clutch.

Heavy lifting chains run over large sheaves so arranged that the pull of the carriage is exactly in line with the work, thus eliminating friction.

Open type carriage permits operators to work from front or rear or both sides of machine.

Carriage guides are provided with spiral cushion springs to neutralize the terminal shock of the ascending carriage.

Complete foot control, leaving hands free for handling sacks. Emergency hand-lever for disengaging clutch.



BARNARD & LEAS MFG. CO.

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MILL FURNISHERS**

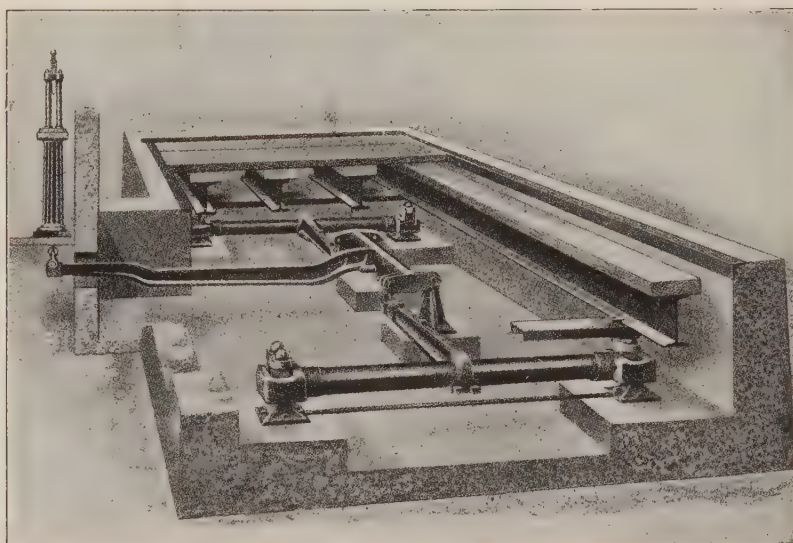
ESTABLISHED 1860. MOLINE, ILLINOIS, U.S.A.



Howe Ball Bearing Auto Truck and Wagon Scales

The cut below shows our **Special 10-Ton Auto Truck and Wagon Scale** for Country Elevators and Coal Yards. Platform 16x8 and Full **Heavy Steel Four I Beam Construction**, with Angle Iron Outside Frame.

H
O
W
E

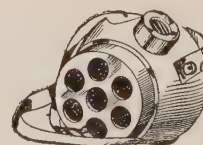
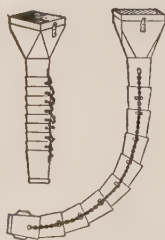
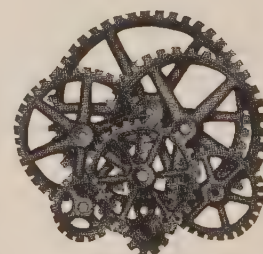


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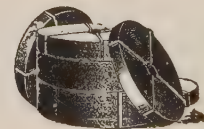
Over **200** of these Special Scales sold in Nebraska and Iowa in 1920. Send for this list. Write users and get their opinions of this **Special Scale**.



Minneapolis V Buckets
Salem & Empire Buckets, Large Stock



Dust Protectors



Complete stocks of all kinds of Pulleys, Belting, Sprockets, Loading Spouts, Grain Spouting and everything for a complete elevator. Write us.

AMERICAN SUPPLY & MACHINERY CO.
O M A H A 1102 Farnam Street N E B R.

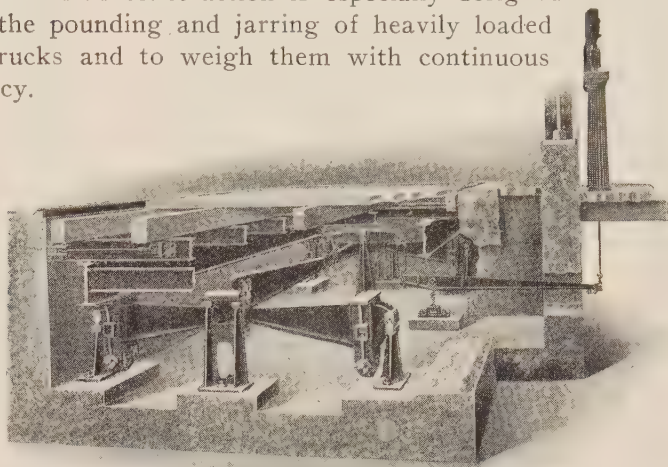
*-a sign
of confidence*



For over ninety years the general public has believed in and profited by the accuracy of Fairbanks Scales.

FAIRBANKS SCALES Type "P" for Auto Trucks

The type "P" auto truck scale with suspended platform construction is especially designed to withstand the pounding and jarring of heavily loaded auto trucks and to weigh them with continuous accuracy.

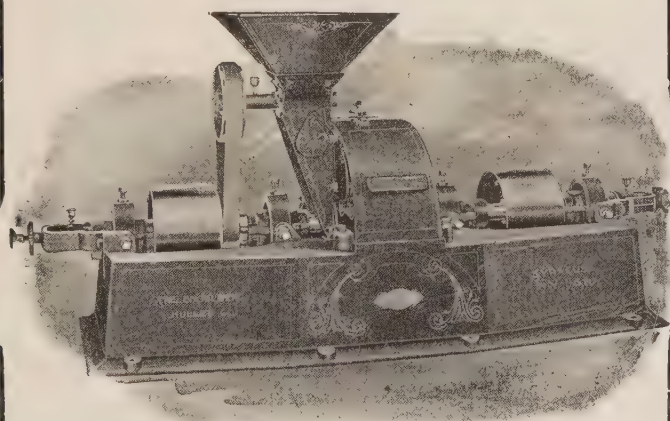


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Engines - Pumps - Motors - Hoists - Air Compressors - Fairbanks Scales - Sheffield Motor Cars - Stand pipes - Coal-ing Stations - Etc.

The "HALSTEAD" HAS NO EQUAL



No Seal Rings
Scientific

Positive Feed
Economical

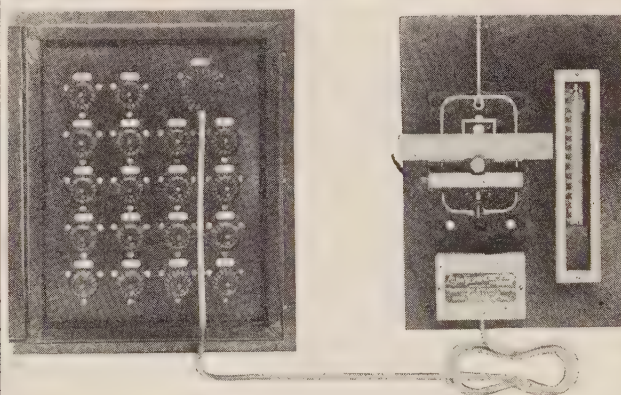
Wick Oiler Bearings

Its best friend is the man who has used other makes.

Grinding Plates alike on both sides, and being reversible, gives FOUR cutting edges.

Highest efficiency at the smallest expense.

THE ENGELBERG HULLER CO.
SYRACUSE, N. Y., U. S. A.



The "ZELENY" Protects Your Grain

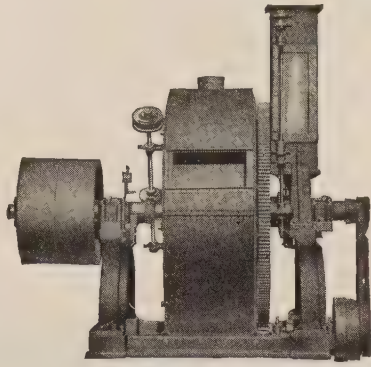
It is a simple device for testing the condition of grain stored in bins or tanks by giving at all times the accurate temperature of the grain, not merely at the bottom and the top of the bins, but at intervals of five feet up through the bins. It saves you money by eliminating unnecessary turning of grain, which entails shrinkage, time, labor, power and wear on machinery; prevents bin-burned grain; increases working capacity of plants by saving time.

Further data will be furnished on request.

Western Fire Appliance Works
542 S. Dearborn St. CHICAGO

A Few Zeleeny Installations

Cargill Grain Co.
Pillsbury Flour Mills
Bartlett Frazier Co.
Updike Grain Co.
Armour Grain Co.
Larabee Flour Mills
New Orleans Public Elevators
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FOR PEARLING BARLEY PEPPER WHEAT

Use Triumph Pearlors if you want to produce pearled barley, or wheat or pepper. They will turn out a product that cannot be beaten.

Full information gladly furnished those interested

THE C. O. BARTLETT & SNOW CO.
Main Office and Works: Cleveland, Ohio

No. 1393

Radio Telephone Market Quotations

together with concerts and lectures are being broadcasted from nearly every large city.

Reasonable deliveries can be made on orders placed now.

Know with whom you are dealing. Ask any Board of Trade firm about us.

THE NASH-ODELL CO.

(Formerly Charles A. Nash, Inc.)

Franklin 1085 172 N. Franklin St. Chicago, Ill.

BAD ORDER CARS

cause the loss of many hard earned dollars to shippers of grain and seed.

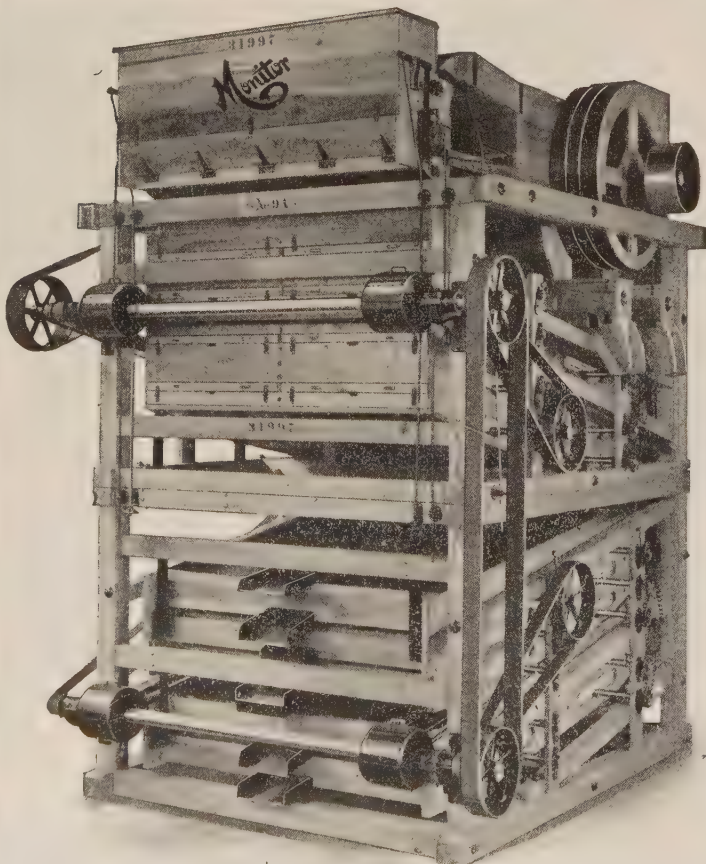
MUCH OF THIS LOSS can be saved by the use of Kennedy Car Liners. These car liners practically condition a bad order car and enable shippers to load cars that otherwise would be rejected.

KENNEDY SYSTEM of car liners prevent leakage in transit and we make car liners for all cases of bad order cars, consisting of full Standard Liners, End Liners and Door Liners.

WILL YOU NOT give us an opportunity to submit full details of our system and the low cost of same? We are confident this would demonstrate to you the efficiency and money saving merits of our proposition.

THE KENNEDY CAR LINER @ BAG CO.
SHELBYVILLE, IND.

Canadian Factory at Woodstock, Ontario.



ONE BY ONE

as the new elevators are built, they equip with MONITORS.

A contract just let for a new elevator at Port Arthur, Ont., specifies MONITOR Separators and Screenings Separator.

The MONITOR steadily advances. Its self evident. Its worthiness explains it.

HUNTLEY MFG. CO.

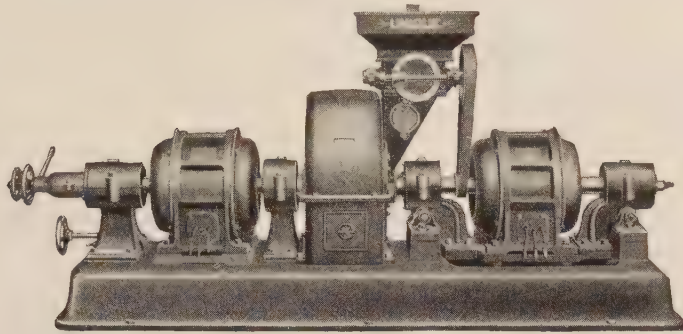
Department B
SILVER CREEK, N. Y.

(In writing, mention department)

Canadian Plant,
HUNTLEY MFG. CO., Ltd.
Tillsonburg, Ont.

Increase Your Sales of Flour and Feed

Easy to say—but you want to know how to do it.
BUY a Unique Ball Bearing Attrition Mill.



(Belt Driven If Preferred)

Grind feed for the farmers the way they want it done. They cannot do it themselves, and when you are grinding feed for them you can sell them flour and feed. You would be surprised, perhaps, to hear that farmers sometimes drive 15 miles or more across country to get feed ground on a Unique. IT'S A FACT.

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MUNCY, PA.

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1131 S. 2nd St. Louisville, Ky.

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Load Railroad Cars Without Scooping



The Boss Air Blast Car Loader will load the largest cars without any scooping in a hot, dirty, dusty car. Both ends loaded at the same time. They CANNOT injure the tenderest grain because grain does NOT pass through fan. One-Way spout furnished if desired. Spout adjustable up or down. 30 days' trial allowed. Grain cleaner attachment free. Grades raised. Make your house modern by installing one. New catalog No. 22 and prices mailed upon request.

Maroa Manufacturing Company, Dept. G, Maroa, Ill.

10,000 SHIPPERS
Are now using

**TYDEN
CAR SEALS**

Bearing shipper's
name and consecu-
tive numbers.

Prevent
CLAIM LOSSES

Write for samples
and prices

INTERNATIONAL SEAL & LOCK CO.

Chas. J. Webb, Vice-President
617 Railway Exchange Bldg., Chicago, Ill.



**CONE-SHAPE
GRINDERS**

IT PAYS TO GRIND ALL GRAINS

Look to the Grinders. They do the work! Bowsher's Cone-Shape grinders are the correct principle in Feed Mill construction. They mean larger grinding surface close to center of shaft; thus More Capacity, Lighter Draft, Longer Life.

"Desire to express my appreciation of the long-lasting, trouble-proof Bowsher. Have used a No. 4 ten years with less than One Dollar per year for repairs." *E. W. Watt, Jacobsburg, O.*

10 sizes; 2 to 25 H. P. Write for free catalogue. Gt
N. P. BOWSHER CO., SOUTH BEND, IND.



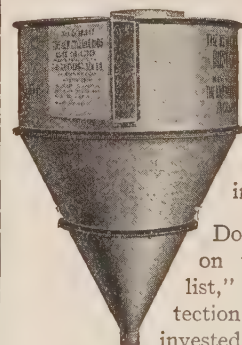
Lightning Protection —IS— Fire Prevention

Insure your elevator or warehouse against loss by lightning. Goshen Lightning Rods are made safe for your protection and are approved by the Underwriters' Laboratories, Inc. See the GOSHEN dealer in your town and get his estimates.

THE GOSHEN LIGHTNING ROD CO.
GOSHEN, INDIANA

NEW DEALERS WANTED

**WHEN EVERY AGENCY FOR
SAFETY OPERATION SAYS
"DO AWAY WITH DUST"
IT'S TIME THAT YOU LIS-
TENED TO REASON—**



The hundreds of thousands of dollars lost through dust explosions would equip every elevator in the country.

Don't be the next on the "Blow up list," but for the protection of the money invested in your business investigate our product.

**The New "1905"
Cyclone Dust Collector**

**THE FACTS ARE MIGHTY
INTERESTING**

The Knickerbocker Co.
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GRAIN ELEVATOR BUILDERS

A Reduced Cost of Handling Grain

makes the Best Elevator obtainable a profitable investment.

Ask for Suggestions on Saving Material, Power and Labor, before completing plans for your new elevator.

30 Years Practical Experience

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Sioux City, Iowa



(Patented)

Folwell-Sinks Form Lifting JACKS

For Grain Elevators and Silo Construction

Manufactured and Sold by

NELSON MACHINE CO.
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We make plans and build up-to-date
GRAIN ELEVATORS AND MILLS

GEO. H. CRAIG

386 120th Place, Blue Island, Ill.

THE RYAN CONSTRUCTION CO.

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We build Modern Fireproof Grain Elevators,
Mill Buildings and Storage Bins

SPECIAL ATTENTION GIVEN TO REPAIR WORK

Let Us Know Your Requirements

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R. M. VANNESS CONSTRUCTION CO.

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MODERN WOOD and FIREPROOF ELEVATORS

We furnish plans and estimates

Room 3 Grain Exchange

Write us about your requirements

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Mills and Warehouses

Especially Designed for Economy
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704 Terminal Bldg. LINCOLN, NEB.

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Designers and Builders—Grain Elevators, Mills and Warehouses
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GRAIN ELEVATORS and COAL POCKETS

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Designers and Builders of

Modern Mills and
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Your Individual Needs

are respected when your elevator
is designed and built by

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Write for Details of Our System

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Fire proof GRAIN ELEVATORS

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Contractors, Designers and Builders of
Concrete or Wood Elevators

JOBBER IN MILL AND ELEVATOR SUPPLIES

FOR

Concrete Elevators

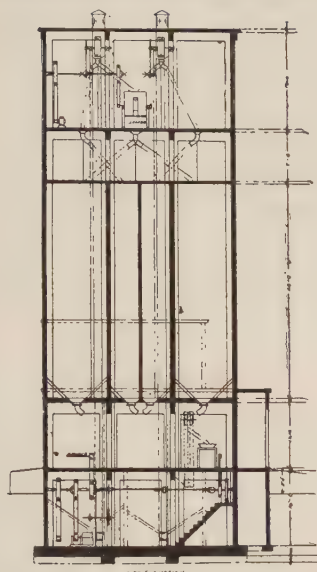
Townsend B. Smith

Designer and Builder

Decatur, Ill.

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GRAIN ELEVATOR BUILDERS



The care and study put into the design and construction of each Reliance Elevator assures the greatest economy in operation. Design No. 1000, side elevation of which is shown above, is especially adapted to the needs of the dealer requiring not over 20,000 bu. capacity. Write for particulars.

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SEND US YOUR INQUIRY

We have the most complete organization in the Northwest for the construction of

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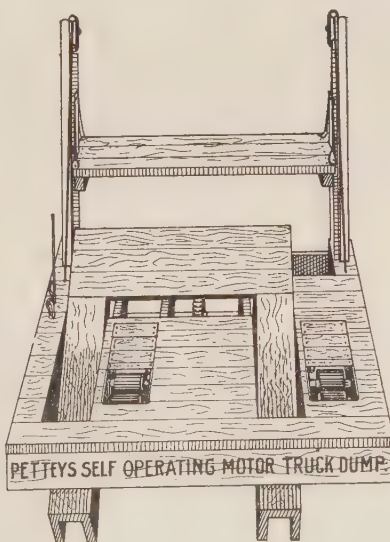
GEO. A. SAATHOFF
DESIGNER & BUILDER
OF GRAIN ELEVATORS
MAYER HOTEL PEORIA, ILL.

HICKOK Construction Co. MINNEAPOLIS ELEVATORS

P. F. McALLISTER CO.
ENGINEERS AND CONTRACTORS
Grain Elevators, Driers, Coal Chutes
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Contracts and Builds
Modern Grain Elevators
We can furnish and install equipment in old or new elevators, guaranteeing greater capacity with less power, and positive Non-Chokable working leg.
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DIRECT HEAT OR STEAM CONTINUOUS FLOW MADE IN ALL SIZES
Randolph Grain Driers
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Petteys Self-Operating Motor Truck Dump

Is the Dump that is always ready and will do the work.

It does not interfere with your wagon dump.

It is easily installed and easily operated.

It is built for strength and durability.

It requires no power to operate other than that furnished by the truck.

Why stop the truck engine, then furnish other power to operate your dump?

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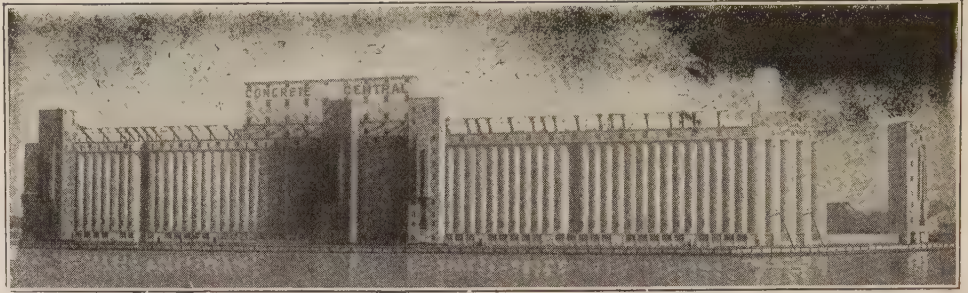
W. A. Petteys Elevator Machine Co.
2020 N. Street LINCOLN, NEBR.

Monarch Built Elevators

assure you economical design, first class work, efficient operation.

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Concrete Central Buffalo, 4,500,000 Bu.

One of the modern houses which has made a record for rapid and economical handling

MONARCH ENGINEERING CO., BUFFALO, N. Y.



Pennsylvania Railroad Co.'s Terminal Elevator at Erie, Pa. 1,250,000 storage capacity, with marine leg, 25,000 bu. receiving capacity. All concrete, modern construction, with latest improvements.

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The Most Modern Elevator in the World

This is an aeroplane view of the Pennsylvania Railroad Company's new Northern Central Elevator No. 3, located at Canton, Baltimore, Maryland, capacity 5,000,000 bushels. This elevator is equipped with

Four Stewart Link-Belt Grain Car Unloaders

See them in operation and be convinced of their great saving in labor cost.

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In All Parts of the World

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New York State Barge Canal Terminal Elevator now under construction

\$148,345.00 saved by the State of New York in placing contract for this structure with us.
ADVANCED METHODS—INTENSIVELY DEVELOPED ORGANIZATION—MADE THIS POSSIBLE

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issue a net price catalog. If in
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Cover's Dust Protector

Rubber Protector, \$2.00

Sent postpaid on receipt
price; or on trial to responsible
parties. Has automatic valve and
fine sponge.

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For Accurate Moisture Tests
use our Grain Dealers' Air
Tight Cans for forwarding
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ST. LOUIS PAPER CAN & TUBE CO.
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Covering our full line of

Grain Elevator
Machinery

Power
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Enterprise, Kansas

Certain Departments

in this number of the GRAIN DEALERS JOURNAL are especially interesting.
After you have read them, consider carefully whether you are not better off with
the twenty-four numbers of the Journal, on your desk, or the \$2.00 in your pocket.

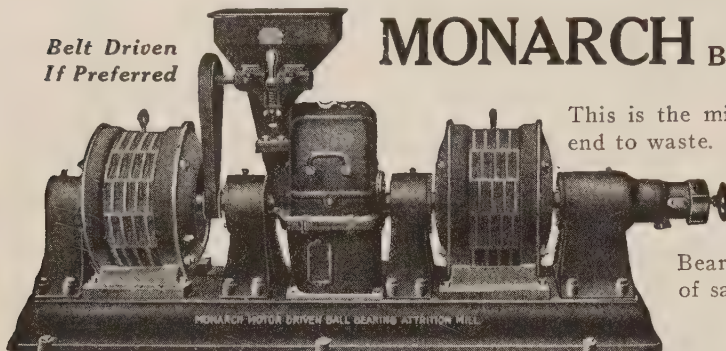
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When you buy a Monarch Ball Bearing Attrition Mill you invest in satisfaction. You get precisely what you have reason to expect—a feed grinder of superior construction and demonstrated economy. You get a mill that is the culmination of long experience and a fixed determination to build a grinder of distinctive merit.

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This is the mill that has won a nation-wide reputation for putting an end to waste. It requires only a fraction of the power required by mills equipped with plain bearings, and the expense for lubrication amounts to almost nothing.

For real, practical, positive economy, the Monarch Ball Bearing Attrition Mill is approved and endorsed by hundreds of satisfied owners.

Send today for a copy of Catalogue D-120.

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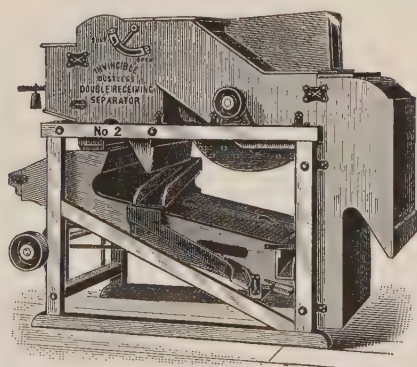
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CONTENTMENT—Plus

That is an experience users of Invincible Separators enjoy.

It is human nature to hate to admit having made a mistake. Ask the operator of any number of makes of separators on the market. He will say his machine is all right—but—



An INVINCIBLE user never has to Qualify his answer with excuses for mechanical shortcomings. No, never.

Take special note of his praise of its efficiency.

He is Contented—PLUS. Join him.

THE INVINCIBLE GRAIN CLEANER CO.
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H. C. Purvine, 111 East 5th St., Bristol, Tenn.

Bert Eesley, P. O. Box 363, Fremont, Ohio

C. L. Hogle, 30 S. Arlington St., Indianapolis, Ind.

C. Wilkinson, 6027 Chestnut St., Philadelphia, Pa.

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Grain Cleaners Limited, 75 Mark Lane, London, Eng.

HALL NON-CHOKABLE ELEVATOR LEG

Adds 100% Efficiency to the cup belt. It revolutionizes the system of elevating grain. It is automatic in action.



The grain is fed to it automatically and unerringly without mechanism and is as reliable as gravitation. In consequence of these facts it is 100% MORE DURABLE than other legs, and is GUARANTEED IN YOUR ELEVATOR.

THE HALL SIGNALING GRAIN DISTRIBUTOR

Our idea is that the Distributor should direct all the grain to the exact spot intended, without mixing, with the least trouble or care, not only now and then, but ALWAYS.

That is the service that the Hall Distributor performs continuously.

Hall Distributor Company, 222 Railway Exchange Bldg., Omaha, Nebr.



SIDNEY AND ELEVATORS AND MAN LIFTS

are Money Makers
They will reduce your handling expense and speed up your work. Easily installed. For quotations give your requirements. SIDNEY ELEVATOR MFG. CO. Sidney, Ohio

DINGS MAGNETIC SEPARATORS

Remove tramp iron and steel from grain before it goes into the feed grinder. Prevent dust explosions and fires, breakage of rolls and damage to grinding faces. WRITE FOR BULLETIN.

DINGS MAGNETIC SEPARATOR CO.
642 Smith Street, Milwaukee, Wis.

Every time you mention the GRAIN DEALERS JOURNAL

to an advertiser, you help to make it bigger and better.

CARTER DISC SEPARATOR



Some Day You'll Use a Carter

—and from the time you install it you will obtain cleaner separation, a higher grading on your grain, and greatly reduced costs for cleaning. The Carter Disc Separator:—

- eliminates all sieves, brushes, shaker devices
- does away with air suction, vibration and dust
- has few working parts, ball bearings thru-out, in oil-tight casings
- takes very little room in the elevator
- easily installed—no dust collectors or spouting
- requires little attention—no repairs

Clean Separation

The Carter insures cleaner separation in one run than any other machine now made.

Made for two classes of separation: the **A type machine** separates oats and barley from wheat, oats and barley from rye, or seeds and wheat from oats.

The **Seed type machine** removes wild peas, cockle and seed from wheat.

Try It At Our Risk

The "Carter" is reducing cleaning costs in hundreds of elevators and flour mills. You are paying for it whether you use it or not. Let us prove our claims. Here's our guarantee—

If, after reasonable trial, The Carter Disc Separator is not satisfactory to you in all respects, we agree to accept its return and give you full credit for it. Write at once for full information and proof of its money-saving, profit-increasing value.

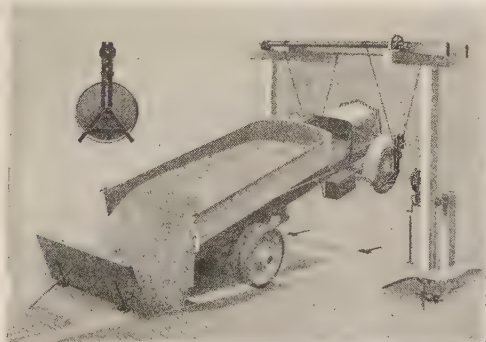
CARTER-MAYHEW MFG. COMPANY

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TRUCK AND WAGON DUMP



Simple
Durable
Practical
Safe
Inexpensive
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Easily Installed, Operated by Hand or Power. For further information address

L. J. McMILLIN, 525 BOARD OF TRADE, INDIANAPOLIS, INDIANA
Designer and Builder of Grain Elevators

Lightning Rods



Lightning is one of the greatest hazards to your Grain Elevator. You can eliminate this hazardous risk, by installing Barnett Extra Heavy Pure Copper Cable Lightning Rod Equipment. Barnett Rods are approved by Fire Underwriters and accepted by Mutual and Old Line Insurance Companies as preferred risks.

Protect your Grain Elevators now. Write by return mail for free Cable Samples and Special Prices to Grain Elevators.

JOS. O. BARNETT & CO.
CEDAR RAPIDS, IOWA



DIXON'S SILICA GRAPHITE PAINT

because of its better protective qualities makes frequent repainting unnecessary and so gives better protection at lower cost.

It is a natural combination of flake silica-graphite with a vehicle of best linseed oil. It will not peel, crack or flake off because of the natural elasticity of the flake graphite, while the silica is an anchor that withstands wear.

Write for Booklet No. 15-B and long service records.

JOSEPH DIXON CRUCIBLE COMPANY
JERSEY CITY, N. J.



Established 1827



ADVERTISE NOW

among your trade by using our leather specialties, which create Friendships and Good Will.

Appropriate for Conventions, Banquets, Souvenirs, etc.

Pocket-books, Bill-folds, Memo Cases, Key Cases, etc.

Let us quote prices by mail.

The Beach Leather Co.

Coshocton, Ohio

28 Years Experience

Wanted and For Sale

The rate for advertisements in this department is 25 cents per type line each insertion

ELEVATORS FOR SALE.

NORTHWESTERN OKLAHOMA elevator for sale, at small station; good crops, fine location. Address 48G12, Grain Dealers Journal, Chicago.

ILLINOIS—Elevator at No. 1 grain point in Champaign County for sale. Address 48F26, Grain Dealers Journal, Chicago, Ill.

ILLINOIS elevator at good grain point for sale; also flour and feed business in connection. For price and information address 48G17, Grain Dealers Journal, Chicago, Ill.

NO. CENTRAL INDIANA elevator of 25,000 bu. capacity for sale; located on P. C. C. & St. L., in good corn and oats belt. Address 48G5, Grain Dealers Journal, Chicago.

INDIANA—15,000 bu. cribbed elevator, iron clad, on private ground in southern county seat. Good grain, flour and feed business. Address 48C23, Grain Dealers Journal, Chicago.

S. W. KANSAS—Large house located at junction point; fine location for mixing house. If you want to get into a good cash grain business in a new territory that is developing, write Box 124, Satanta, Kansas.

CENT. ILLINOIS elevator for sale, consisting of 15,000 bu. house, electric power, coal shed, office and wagon scales, all on my own ground. Will sell reasonable if taken at once. Address 48E6, Grain Dealers Journal, Chicago.

FOR SALE—Elevator 6,000 bu. capacity, located in good wheat belt on C. M. & St. P. R. R. near K. C.; also good feed business in connection. Priced right. Good reasons for selling. Address 48F11, Grain Dealers Journal, Chicago.

SO. DAKOTA—Good cribbed 20,000 cap. elevator in Corsica, Douglas County, eastern S. Dak., for sale. Good territory to draw from. Was offered \$6,000 in 1918, will sacrifice now for \$4,500. Write to Jos. D. Hofer Elvtr. Co., Freeman, So. Dak.

OHIO—A nice up-to-date motorized elevator for sale, in a fine grain belt with a good coal trade and farmers exchange; willing to sell ½ interest; will guarantee a bargain. Elevator owns its own ground and siding. Will trade. C. G. Williamson, Waynesville, Ohio.

FOR SALE AT A BARGAIN—CONCRETE and brick elevator and malt house, 150,000 bu. storage capacity, suitable for drying, cleaning and general storage of grain, manufacture of flour, feed or cereal products; transit rates; terms. Write A. J. Pick, West Bend, Wis.

CENTRAL IOWA—Six elevators on Chicago, Great Western R. R., handling grain, feed and coal; all modern equipment and in first class condition. The opportunity of a lifetime to purchase an old established and money-making business. Address 48D14, Grain Dealers Journal, Chicago, Ill.

EASTERN KANSAS 6,000 bu. elevator, 6-room residence, garage, hen house, cow barn, 3 hog houses, all on 3 acres private ground. Sale price \$9,000.00. Doing good business in grain and side lines. Would run business for purchaser for 1/3 net profit or salary, or will give possession when desired. Need money or would not sell. Address 48G18, Grain Dealers Journal, Chicago, Ill.

HERE IS what one advertiser in our "Elevators For Sale" columns writes us shortly after the third insertion of his ad: "I wish to tell you that my ad in your Journal is the first time I ever tried to find a buyer for anything I had for sale in my life. The old saying 'It pays to advertise' is certainly true. I have several good parties lined up from the many inquiries through my ad in your paper."

ELEVATORS FOR SALE.

WESTERN IOWA—Three elevators and loading station; fine territory; no competition. Address 48F12, Grain Dealers Journal, Chicago.

E. CENT. INDIANA grain elevator for sale. This elevator is new and in good condition. Capacity 12,000 bu. On a good railroad and in good country. Address Lock Box 56, Waveland, Ind.

FOR SALE—A No. 1 elevator at a bargain if taken at once. Track scales. Doing a good coal and feed business. Address 48F1, Grain Dealers Journal, Chicago, Ill.

SO. DAKOTA grain elevator, fully equipped, 25,000 bushels, wagon dump and hopper scales, gas engine, coal sheds; price \$2,000. C. J. Ward 514 Ashton Boul., Rockford, Ill.

MISSOURI—15,000 bu. elevator for sale on Wabash R. R., in good territory; electrically operated; only elevator here; carry all side lines; doing good business. Want to retire. Address 47X16, Grain Dealers Journal, Chicago, Ill.

ELEVATOR FOR SALE—If you do not find the elevator you want advertised, place your wants in the "ELEVATORS WANTED" section and you will receive full particulars regarding many desirable properties not yet advertised.

MINNESOTA elevator and former malt plant at Minneapolis for sale. Plant in splendid condition. Fine switching facilities. Will sell at a sacrifice for quick sale.

The Title Guarantee & Trust Co.,
Cincinnati, Ohio.

HAVE NO KICK COMING: Cancel ad. We are so flooded with replies that we will be kept busy for months to come. We certainly were glad to know that every morning brought us queries for our equipment and always in the letters they would say that they noticed the ad in the Grain Dealers Journal. It is a great thing for us as long as we can supply the demand.—E. J.

ILLINOIS—20,000-bu. capacity elevator, located on C., B. & Q. R. R., for sale. Good coal and feed business in connection, with new feed house and coal storage. Elevator in fine condition and equipped with electric power, 2 dumps, 2 scales. Exceptionally fine location. Only elevator in town. Priced right. Address 47S15, Grain Dealers Journal, Chicago, Ill.

CENTRAL KANSAS—Elevator equipped with modern corn meal and feed grinding machinery, located in a splendid wheat belt. This property is a money maker for any one who can give it his personal attention, but cannot be handled conveniently by the present owner, who is a non-resident. The elevator and mill stands on private property on a railroad spur, and is for sale at a very low price. Address 48G13, Grain Dealers Journal, Chicago.

A REAL ELEVATOR BARGAIN IN EASTERN COLORADO—14,000 bushel capacity iron clad elevator, at Arriba, Colorado, in the heart of the wheat belt of Eastern Colorado. 100 miles east of Denver on the C. R. I. & P. Ry. Also iron clad ware-room with full size basement, and 2 frame coal houses. This elevator is doing an excellent grain, feed, coal and flour business. Only one other elevator in town. This is worth looking after. Only those who mean business need answer.

The Arriba Equity Mercantile Co.,
Arriba, Colorado.

FOR SALE OR EXCHANGE.

HAVE four modern elevators in irrigated district of Wyoming. Will sell or trade for elevators in Central Nebraska. Address Box 597, Cheyenne, Wyo.

ELEVATOR FOR SALE OR RENT.

MINNESOTA elevator of 25,000 bushels capacity for sale or rent. Located on C. M. & St. P. Ry. Coal and feed business in connection. Address J. J. Dobie, Mapleton, Minn.

ELEVATOR & MILL FOR SALE.

ELEVATOR & MILL at Kennard, Ohio, for sale. Address Mrs. J. L. Hewling, Route 3, Cable, Ohio.

FINEST 600 bbl. country flour mill and elevator for sale; in active operation; splendid trade; prime locality; transit both ways, to and from terminal; excellent reputation; electric power; city lighting additional revenue. Write or wire A. H. P., 151 Chamber of Commerce, Minneapolis, Minn.

MILL FOR SALE.

MODERN 100-BARREL MILL for sale; large territory, Rocky Mountain section; plenty of wheat. Feed mill in connection. Cheap power. Address 48B4, Grain Dealers Journal, Chicago.

ELEVATORS WANTED.

WILL TRADE 200 acre farm in Moultrie Co., Ill., for good elevator. C. M. Campbell, Bement, Ill.

WANTED—Elevators at good grain points; will take side lines also. Address E. W. Davis, 513 N. Seminary st., Galesburg, Ill.

AT GOOD POINT in Northern Indiana or Northwestern Ohio. State in full all details such as condition of buildings, equipment, distance of competition, other local competition, amount and kind of business handled in normal year and all other details. Would consider large retail coal and feed business in the location mentioned. G. Wolff & Sons, Hamilton, Ind.

ELEVATOR BROKERS.

JOHN A RICE **ELMER N. SMITH**
Elevator Brokers, Frankfort, Indiana.

ALWAYS HAVE ELEVATORS For Sale in the Grain Belt of Illinois and Eastern Indiana. If you are in the market write me fully and I will try to satisfy you.

JAMES M. MAGUIRE,
432 Postal Tel. Bldg., Chicago, Ill.

CLAYBAUGH-McCOMAS

Offices
Frankfort, Ind. Indianapolis, Ind.
223 B. of T. Bldg. 601 Board of Trade.
If you want to buy, sell or trade an elevator write us at either address.

BUSINESS OPPORTUNITIES.

OLD ESTABLISHED Seed, Feed and Poultry Supply Store for sale; growing business. Champaign Seed Co., Champaign, Ill.

EWEN, MICHIGAN—We are anxious to have a good company locate here and build a warehouse to buy up farm products. This is a growing farming community and a good company would make a success. Harry Hankin, Ewen Development Ass'n.

A REAL BARGAIN—Two complete grain elevators and feed mixing plants, molasses feed units, chicken feed units, hay grinding plant, chop mills, oat crimpers, etc., for sale. Will sell on easy terms. Plants located in best grain centers in the South. For particulars write to Kaucher, Hodges & Co., Memphis, Tenn.

PARTNER WANTED.

ANSWERS—When the first ring of the door bell is not answered, don't conclude that the folks are not at home.

TO TAKE one-third interest in established grain and coal business. Two good elevators doing big business in grain and side lines. Prefer man who can assist in management of the business or handle books. Answer if you have \$10,000 to invest. Address 48F22, Grain Dealers Journal, Chicago, Ill.

HELP WANTED.

MANAGER wanted for co-operative country elevator. Must know grain, bookkeeping and elevator work, as no helper is kept through slack months. J. T. Hardy, Sec'y, Haviland, Kans.

SITUATIONS WANTED.

MILLER wants position any time from June 1st to August 1st; 15 years' experience; can give best reference. Address 48G9, Grain Dealers Journal, Chicago, Ill.

POSITION wanted as manager of elevator; 10 years' experience; can furnish A1 reference; will come on 1 month's trial. Address 48F4, Grain Dealers Journal, Chicago, Ill.

WANTED—Position as manager of a farmers elevator company; 10 years' experience in grain, lumber, coal and hardware. Address 48E10, Grain Dealers Journal, Chicago.

MAN WITH long time experience in grain and milling business wants position as manager or assistant with some good grain firm. Address 48F23, Grain Dealers Journal, Chicago, Ill.

POSITION as manager and bookkeeper of elevator; 11 years' experience grain, flour, feed and coal business; 33 years old; married; best of references. Address 48F16, Grain Dealers Journal, Chicago, Ill.

POSITION WANTED in grain or brokerage office, by young man aged twenty; 3 years' experience in brokerage office and on road for Chicago grain firm. A1 references. Address 48G3, Grain Dealers Journal, Chicago, Ill.

WANTED—Position as elevator repair foreman; 12 years' experience; can handle any kind of repairing or painting, installation of scales, engines, machinery; married. Best of references. Address L. Box 107, Frazee, Minn.

A man who has enough push to advertise his services in a high class trade journal is the kind you want. Look 'em over. You will find a competent manager, a reliable grain buyer or a qualified and efficient traveling solicitor.

AFTER JUNE 1st I will be at liberty to accept position as manager of terminal or A1 country elevator; 15 years' experience in handling grain; can make money for you in the blending and drying of grain so as to get best possible federal grades. Age 40 years; married. Best references. Address 48G1, Grain Dealers Journal, Chicago, Ill.

I HAVE had a broad experience in the grain business. Operated a country station for 10 years and made it show a nice profit, and have had 5 years' experience in terminal markets. If you want a man to manage your elevator and make you money, write me and I will talk it over with you. Best references. Address 48F17, Grain Dealers Journal, Chicago, Ill.

POSITION by man of 15 years' experience in the merchandising and buying of grain. Complete knowledge of Eastern and Southern business and markets. Well acquainted with the elevator trade throughout Ohio, Indiana, Michigan and Illinois. Capable of taking charge of large grain department. Now employed, but can make change on 30 days' notice. Address 48F2, Grain Dealers Journal, Chicago, Ill.

FLOUR FOR SALE.

MIXED CARS of flour and mill feeds in 100 pound sacks are our specialties. We are now manufacturing a full line of corn goods, cracked corn, feed meal, corn and oats chop, Ohio Farm feed, shelled corn and standard oats in connection with our flouring mill. Would like to send you a trial to convince you of the superiority of our products. Ansted & Burk Co., Springfield, Ohio.

MACHINES FOR SALE.

BOSS CAR LOADER for sale; one No. 8. Address A. H. Richner, Crawfordsville, Ind.

WRITE ME for prices on used Midgets. All kinds new and used mill and elevator machinery. H. C. Davis, Bonner Springs, Kansas.

SEPARATOR—Howes Eureka Dustless, No. 196; used only 2 years and in perfect order. Price \$100.00. A. Walton, Columbia, Va.

DO YOU WANT A MACHINE that is not advertised here? Make your wants known in the "Wanted" columns. Someone has the machine you want, but has not started advertising it for sale in the Grain Dealers Journal.

DURABLE WIRE ROPE for sale, for car shovels; cast or plow steel. Manila rope, buckets and everything in elevator supplies.

PULLEYS—1,000—for sale. ALL sizes, solid cast iron, wood and steel split. Standard Mill Supply Co., Kansas City, Mo.

MACHINERY BARGAINS.

Among the items of used machinery that we have in stock are the following:

1 20" Monarch Ball Bearing Direct Motor Driven Attrition Mill

1 9x18 Allis Double Roller Mill.

Write us for prices on used machinery and equipment. L. R. Veatch, 418 Prudential Bldg., Buffalo, N. Y.

CRACKED CORN AND MEAL MACHINES—

We are building the most complete self-contained cracked corn machines in one and two reductions and cracked corn and meal machines in three reductions that produce results equal to any plant of an equal number of reductions and at a price within reach of all. Use one of the cracked corn machines ahead of your present meal equipment and increase the quality 25%. G. H. Haines, Spring Valley, Ohio.

REAL BARGAINS.

Prompt Attention. Quick Shipments.

When in need of elevator or mill machinery, notify us. We are headquarters for power and transmission equipment, and have on hand several well-known makes of motors, boilers, engines, etc.

Send us list of all your wants. We can supply you with full line of machinery for elevators, flour, corn and cereal mills. Complete equipments for modern mills of all kinds, molasses, stock, and poultry feed plants, plans, specifications, flow sheets, etc., our specialty. Write us without delay.

Geo. J. Noth, Mgr.,

9 S. Clinton St. Chicago, Ill.

BARGAIN SALE ON SHELF-WORN BOOKS.

These books are slightly soiled and shelf worn. To clear out these books promptly we are offering them at greatly reduced prices.

Two No. 222Co, Orders for Cars. These books contain 50 blanks in duplicate for ordering cars in writing from station agent. Carbon copy enables you to keep record of cars ordered. Books are worn from salesmen's usage. Order Form 2222 Co. Price 40 cents each.

GRAIN DEALERS JOURNAL.

309 South La Salle St., Chicago, Ill.

OIL AND GAS ENGINES.

25 h.p. FAIRBANKS MORSE OIL ENGINE, latest type Y, used six months, for sale. Miles Machinery Co., Saginaw, Mich.

FAIRBANKS MORSE 20 h. p. special electric gasoline engine; in perfect condition. \$350.00 f. o. b. cars. A. W. Day, Wayzata, Minn.

SCALES FOR SALE.

HOWE SCALE TEST WEIGHTS for sale. One ton (forty 50-lb. weights); good condition. Priced right. Chas. Love, Macon, Ill.

CHEAP FOR QUICK SALE—Fairbanks Registering Beam 100 ton R. R. scale, in good condition. Conover Grain Co., Conover, Ohio.

FAIRBANKS 50 ft., 5 section, 100 ton track scale for sale; nearly new. For further particulars write Wayne Grain Co., 630 Globe Bldg., St. Paul, Minn.

STEAM ENGINES, BOILERS.

BARGAIN FOR QUICK SALE.

One 65 h. p. Center Crank Steam Engine with 80 h. p. High Pressure Boiler (new). Also Double Cylinder Snow Pump and all pipe connections, in first class condition. Write Farmers Union Co-op. Ass'n, Maple Hill, Kansas.

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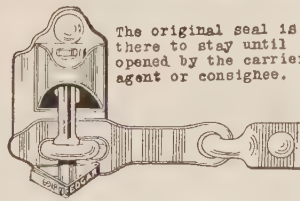
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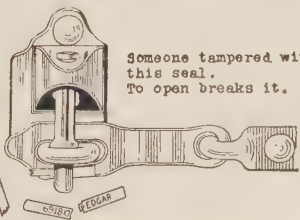
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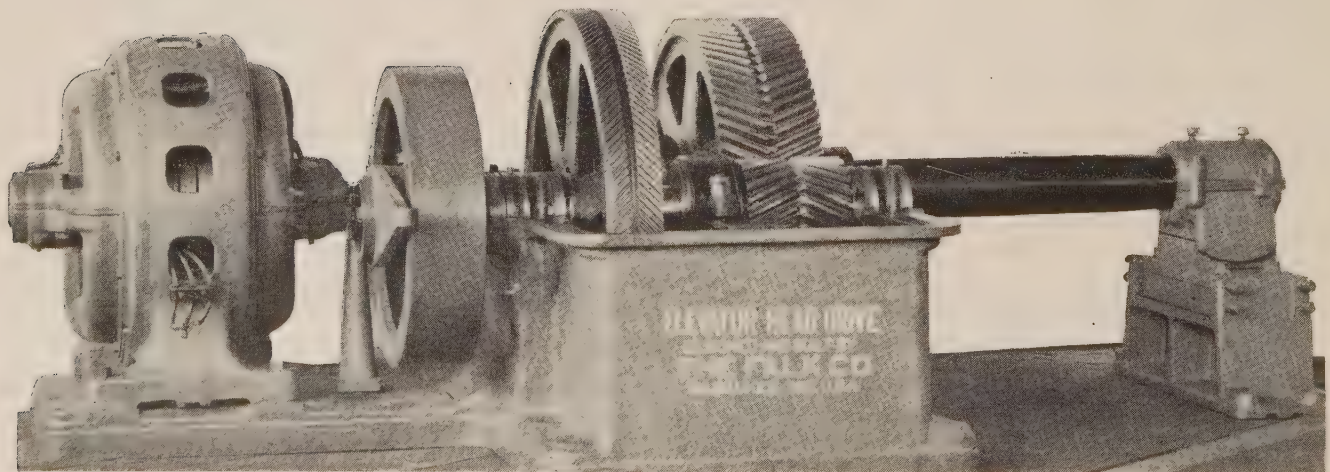
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GRAIN DEALERS JOURNAL

309 South LaSalle Street, Chicago, Ill., U. S. A.
Charles S. Clark, Manager

Published on the 10th and 25th of each month in the interests of better business methods and improved handling facilities for progressive wholesale dealers in grain and field seeds.

SUBSCRIPTION RATES to United States, semi-monthly, one year, cash with order, \$2.00; single copy, 15c.

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THE ADVERTISING value of the Grain Dealers Journal as a medium for reaching progressive grain dealers and elevator men is unquestioned. The character and number of advertisements in each number tell of its worth. If you would be classed with the leading firms catering to the wholesale grain trade, place your announcements in the Journal.

Advertisements of meritorious grain elevator machinery and supplies and of responsible firms who seek to serve grain dealers are solicited. We will not knowingly permit our pages to be used by irresponsible firms for advertising a fake or a swindle.

LETTERS on subjects of interest to those engaged in the grain trade, news items, reports on crops, grain movement, new grain firms, new grain elevators, contemplated improvements, grain receipts, shipments, and cars leaking grain in transit, are always welcome. Let us hear from you.

QUERIES for grain trade information not found in the Journal are invited. Address "Asked-Answered" department. The service is free.

CHICAGO, APRIL 10, 1922

DON'T put head or arms out of window. The box car shortage which is just around the next curve may make the elevator a car-less orphan.

IF the other man's confirmation is not acceptable, do not accept it. But, for the sake of the business and its profit and loss account, do the objecting immediately.

THE SCHEDULE of discounts on off grade wheat, adopted by the U. S. Grain Corporation and still used by Southwestern exporters, is so popular with the shippers all of the Southwestern Ass'ns will be called upon to adopt resolutions endorsing it. Tabled, did you say?

THE EUROPEAN corn borer destroyed entire fields of corn in Ontario last season and did much damage in Northern Ohio and Eastern Michigan. Experts who have studied the situation fear much more damage this year, yet the friends of devastating disaster in the Senate have cut the appropriation to fight this pest out of the agricultural appropriation bill entirely.

THE MILLING industry has been built up to its present standard by intelligent men who have labored in it thru many years. They have thought their accumulated experience has taught them some true facts. Now comes a Minnesota politician, who, with an experimental mill, proves (?) the facts learned by the industry as to the relative milling value of different grades of wheat are all wrong. Ain't science (and politics) wonderful!

CLEANLINESS being next to godliness, dirt must be an evidence of kinship with his santanic majesty. And the definition comes near to being fulfilled when a spark gets mixed up with dirt of the right kind.

MATERIAL reductions in ground rentals for elevator sites on railroad right of way are in prospect for Illinois elevator operators. The prolonged agitation against the greed of the railroad companies has resulted in a promised reduction.

FREE SEEDS have been cut out of the agricultural appropriation bill once again by the Senate Finance Committee, but as the bill must go to a conference of committees from the two houses, the distributors of the worthless seeds may get this item back in the bill.

THE PLEA of Galveston for a differential under New Orleans in the freight rate on grain for export from much of the Southwestern territory will not seem so absurd to grain dealers when Galveston has provided facilities needed to expedite the handling of grain she already receives.

FIXING PRICES of farm products does not meet with the approval of the governor of Nebraska, who in response to a request for an endorsement of such a demand upon Congress wrote, "What the business of the country needs most now is to be let alone so the natural laws may operate untrammelled." Would that more of our impractical theorists could attain a little horse sense.

REASONABLY intelligent persons know full well what caused the price of cotton to decline, but when a senator asked the question in the legislative halls at Washington the other day it was considered necessary to delay the answer until the Federal Trade Commission "investigates" for a few years—and a few thousands of dollars. Of course, nobody is really interested in the answer, but the f. t. c. will go thru the motions—and spend the money—anyway.

TELEPHONE rates are too high. The rules and regulations applying to telephone service place a heavy and unfair burden on grain dealers, who conduct so large a portion of their business by telephone. These facts are brought out quite clearly in the resolutions recently adopted by the Salina Board of Trade which are published elsewhere in this number of the Journal; and it is time that the trade make a determined effort to obtain fairer treatment from the 'phone companies. "Person to person" calls, "messenger and appointment" calls, and even the rates themselves were established as emergency measures while the service was in control of the government during the war. The emergency is now long past; the war is over; everything else has been deflated or is in the process of deflation. There can be no reason for longer continuing the practice of studied and unnecessary extortion from the telephone using public. In truth and in fact, there never was any reason except that the power to accomplish the extortion existed and those who had it could not refrain from using it.

THAT MISSOURI scientist who says the longest apparently authenticated life in seeds is about 150 years is not playing fair with the fellows who have for sale a stock of the seed of Miracle wheat and other grains from Egyptian tombs.

EARLY Maturing small cob seed corn would help growers to a more certain crop of corn which will surely grade in all markets. Such corn will prove a more profitable and more satisfactory crop for all concerned. Will you help secure its planting?

WATCH OUT for a bad order box car before you start to load your grain, because reports show the railroads to have more bad order than good order cars. The consignee objects to paying for more grain than is delivered at destination and it requires ages to collect from the carrier.

FREIGHT RATES on grain and grain products are being changed frequently by the various carriers, many of the new tariffs being made necessary by the recent general reductions. Still other changes are required to restore the proper relationship between different markets and for other similar purposes, and all of it goes to make it imperative that the shipper keep posted by studying the new tariffs as they are issued, then keep an orderly file at his elbow.

UNCLE SAM is a grand old soul. He lends his farmer children money to buy their seed. If they make a crop they keep the profits. If they fail to make the crop he cancels their notes. A man from Mars, viewing the situation even at close range, would never understand from the individual citizen's attitude that the said individual citizen is a component part of that imaginary Uncle Sam, and that the bill is paid by individual citizens collectively.

CUSTOMERS giving orders for trades in futures for the account of the corporations of which they are managers or officers will have less reason to be offended when the broker asks them whether they have authority to deal in futures, if the new rule of the Chicago Board of Trade is adopted. In several cases that have gotten into the courts the officers tacitly acquiesced in the operations of their manager when his trades resulted in profits, but have repudiated even hedging when the transactions showed a loss.

THE FIGURES submitted to a senate com'te by Daniel Willard, pres. of the B. & O. Railroad, show that only 2% more traffic was handled by the railroads under federal control in 1918 than was handled in 1917 when the lines were privately controlled. Now, if statistics were made available to show the excess of cost in 1918 over 1917 to handle each unit of traffic we would have a starting point from which to calculate the real inefficiency of government operation. Of course, the whole cost of government control could not be worked out now. Some of its effects will be with us for many years, and its baneful influence may not pass out with the century.

ANTI-SALES TAX agitation by the Farm Bureau Federation is but a smoke screen to hide the fact that the manufacturing interests of the nation are paying far more than their share of taxes, compared with the agricultural community. This has been true for some years past and is an example how the incidence of taxation is shifted from those upon whom it bears directly to those with whom they deal. Thus the high tax on our manufacturers is one of the principal reasons for the high cost of furniture and manufactured goods, which reduces the purchasing power of the farmer's dollar. If the farmer paid more taxes the purchasing power of his dollar would be higher.

THE DESTRUCTION by fire and dust explosion of the elevator of the Rock Mill & Elevator Co., at Hutchinson, Kan., and the damage to the plant of the Midland Flour Milling Co., Kansas City, Mo., by the same agencies, are the most recent examples of the menace held over the business of handling grain by these hazards. At Kansas City, one explosion apparently extinguished the fire propagated by another; at Hutchinson, the efforts of the fire fighters were rendered futile by a terrific explosion that shattered the building and spread the fire thruout the debris. It is true, of course, that in both cases the proximate cause was the spark, flame or other manifestation of heat that ignited the dust; but the basic cause was the dust which was ready for ignition when the heat was generated. Therein lies the lesson for every grain dealer, for every elevator operator and employee: Dust must be kept in its place; it must be so controlled that it cannot be thrown into suspension in the path of an igniting agency. If this lesson can be impressed upon those who must learn it the dust explosion hazard will have been removed.

CHANGES in wheat grades are not desired by grain dealers or by the great majority of wheat growers. The only insistent demand for alterations comes from a group of politicians and from a small percentage of growers who are following the lead of those politicians. The changes asked for, when resolved to their fundamentals, will have but one effect on the wheat itself, namely, that of forcing much grain into a higher numerical grade than it would otherwise be entitled to. It is plain to any thinking person that this will not increase the value of that wheat. Rather will it lower the value of all wheat, for it is practically a basic principle of business that if the requirements for the highest standard are so stated that much which falls into it is decidedly inferior to the remaining portion the value of the whole will gravitate towards the intrinsic value of the most inferior component part. The buyer must be guided by this principle for his own protection. The effect of such a change in the wheat standards, then, will be to lower the value of the true No. 1 instead of raising the value of that part which should actually grade No. 2 or below. The farmer will be the one to lose if this change is brought about, and it is because the trade knows this that every grain dealer is opposed to having the standards tampered with.

The Proposed Change in Wheat Grades.

Grain dealers at the terminal markets have a wonderful capacity for adjustment to new conditions whether imposed by trade conditions, Government or Providence; but the export interest and the country elevator trade have reasons to view with alarm the changes in the wheat grades proposed by the two professors from North Dakota and Kansas, as it will be practically impossible to work under the changed conditions at the country stations or the seaports.

The country grain buyer under the rules proposed by the professors would have two kinds of No. 1 wheat. One kind would be real No. 1 wheat, the kind the buyers pay well for at the terminal markets and for export, while the other kind would be counterfeit No. 1, the government specifying the character of the adulteration permissible in the counterfeit. For example, a parallel to the wheat grading system under the changes in the rules would be a grading of pure granulated sugar as No. 1 sugar, and the other counterfeit No. 1 as granulated sugar with white sand mixed with it. Of course no one knowingly would buy sugar with white sand mixed with it at the price of pure sugar. Just so would no one buy the Government proposed counterfeit No. 1 wheat with excess moisture in it.

No limit is prescribed for the excess moisture permissible in No. 1 "excess moisture" wheat under the professorial rules. The so-called scientists may delude themselves into thinking that the terminal elevator men will pay real money for water, but the grain dealers are hard-headed merchants who have to resell to millers and foreigners who can not make water into flour and who refuse to be cheated by the sellers of water, even tho aided and abetted by the Federal Government's solid phalanx of Capper-Tincher enforcers, bureau of crop estimators, secretaries of agriculture and grain supervisors.

One branch of the federal government declares the miller to be a crook if he has more than 13½ per cent water in his wheat flour. But now the Sec'y seriously proposes that the Minnesota farmers shall be allowed to force 17 per cent moisture wheat upon the unlucky miller, at the price of dry wheat.

The Minnesota politicians have a clearer idea of what they are trying to do than has the rest of the country. The whole propaganda has its basis on the physical fact that the wheat of the lake region and Minnesota contains normally several percent more moisture than the wheats of the Southwest and West. The Southwest and the states west of Minnesota can and do produce a wheat with 13 per cent moisture that is as good as gold in any elevator, and will stand shipping to any part of the world. Unfortunately for Minnesota that state and parts of the country near by on some crops yield a wheat containing 15 per cent moisture, that will not bear shipping safely and that can not be stored in a grain elevator for any length of time without heating. What the Minnesota politicians desire to do is to deceive their farmer voters into believing that they have succeeded in getting the heavy moisture Minnesota wheat priced in the markets of the world the same as the choicer and drier wheats of Western Dakota, Wyoming, Montana, Idaho, Oregon and Washington, and the Southwest.

If there is any merit in the contention that spring wheat is bought on the basis of the lowest grade the growers of Minnesota have been getting full value for the wheat while the farmers farther west have been penalized by not receiving more for No. 2 than were the Minnesota farmers. The farmers farther west should be the ones doing the complaining,

if there was any merit in the contention that the name of the grade makes the price. Fortunately for the country grain dealer and the farmer there has never been a time when his wheat of superior quality failed to command a premium on the sample tables of the grain exchanges.

Would You Save Your Property?

Every owner of a grain handling plant, whether he contemplates making extensive improvements or not, owes it to himself to protect his property in every way warranted by the experience of those who make a special study of the fire hazards of grain elevators. This number contains a symposium of the dangers threatening grain elevators which are not equipped with standard lightning rods, fire resistive roofing and siding, or are exposed by nearby buildings constructed of combustible material.

The experience of all the fire insurance companies shows conclusively that grain elevators can be protected from strokes of lightning by equipping them with standard lightning rods or else iron cladding the building and connecting the roof with the siding and the siding with the ground in such a way as to afford easy passage of electricity from the sky to the earth. The locomotive spark hazard can be minimized by covering the roof and sides with fire resistive material, while the exposure hazard can be readily corrected by pushing the inflammable structures farther away from the elevator.

The improvements needed to change an elevator from a hazardous risk to a safe and desirable risk are so simple and inexpensive that no owner of a grain handling plant should hesitate to make them. Then, too, the fire insurance companies give such handsome credits for these practical precautions that no property owner can afford to ignore their recommendations.

For years locomotive sparks and lightning have led in the causes of grain elevator fires with all fire insurance companies, and the exposure hazard is also credited with a large number of losses. All men who have given special study to the causes of fires in grain elevators agree that the fire losses can be greatly reduced and the cost of insurance cut in half if all property owners will but recognize the large losses due to these hazards and help to prevent all fires from the three known causes.

Year after year our grain elevator fire statistics have piled up evidence against lightning, locomotive sparks and exposure, and we doubt not that the average reader has profited by the collection of these statistics, at least to the extent of resolving to protect his property against these hazards at an early date. But procrastination has contributed largely to the postponement of the needed improvements to a time still far in the future.

Some insurance companies will not write insurance on grain elevators covered with wood shingles; and after one peruses the evidence of the many fires started by locomotive sparks on wood shingles the wonder is that any insurance company will either write a new risk or carry an old one which is covered with wood shingles.

Grain elevator owners who have the interest of their own business at heart will see to it that the three offending hazards are corrected before any grain is again taken into the house and subjected to the same fire hazards as the building itself. If you want your fire insurance cost cut down, recognize the overwhelming evidence of our contributors in this number, correct the hazards and a material reduction will immediately be granted in your insurance costs.

All Opposed to Changes in Wheat Grades

H. C. Taylor, chief of the Bureau of Markets and Crop Estimates, Washington, D. C., at 10:30 Apr. 10 called to order the hearing at Chicago, Ill., on the changes in the wheat grades proposed by Professor J. L. Coulter of the Agricultural College of North Dakota and Mr. L. A. Fitz of Kansas.

The proposed changes follow:

THE PROPOSED CHANGES.

Excess Moisture Grade.

Sec. 26. Excess Moisture Wheat: Excess Moisture wheat shall be all wheat which contains more than 14 per cent of moisture. Excess Moisture Wheat shall be graded and designated according to the grade requirements of the standard applicable to such wheat if it were not Excess Moisture Wheat, and there shall be added to, and made a part of, its grade designation the words "Excess Moisture."

The inspector would be required to state on the certificate the percentage of moisture in Excess Moisture Wheat.

II. Foreign Material Other Than Dockage.

Change the present requirements of the federal wheat standards so as to place the same limitations on all grades that now apply to foreign material other than dockage in grade No. 1. Then insert a new section in the present official standards as follows:

Sec. 27. Excess Foreign Material Wheat: Excess Foreign Material Wheat shall be all wheat which contains more than 1 per cent of foreign material other than dockage, or which in the case of any grade No. 1 contains as foreign material other than dockage more than 5 per cent of matter other than cereal grains. Excess Foreign Material Wheat shall be graded and designated according to the grade requirements of the standard applicable to such wheat if it were not Excess Foreign Material Wheat, and there shall be added to, and made a part of, its grade designation the words "Excess Foreign Material."

(Under rules and regulations pursuant to the United States Grain Standards Act licensed inspectors will be required to state, in the space for remarks in all certificates issued by them for Excess Foreign Material Wheat, the name of the predominating kind of foreign material other than dockage, and in addition the approximate percentage thereof if 1 per cent or more. When the wheat contains two or more kinds of foreign material other than dockage to the extent of 1 per cent or more of each kind, the name and approximate percentage of each kind shall be stated in the order of its relative predominance.)

III. Weevily Wheat.

Change the definitions of all sample grades in the present standards by striking out the reference to live weevils or other insects injurious to stored grain, and insert a new section in the standards as follows:

Sec. 25. Weevily Wheat: Weevily Wheat shall be all wheat infested with live weevils or other insects injurious to stored grain. Weevily wheat shall be graded and designated according to the grade requirements of the standard applicable to such wheat if it were not weevily and there shall be added to, and made a part of, its grade designation the word "Weevily."

IV. White Wheats.

Combine the present common white and white club classes into one class to be known as "white," with three subclasses to be known respectively as hard white, soft white and Western white. Make the same application of the hard white and soft white subclasses at present, and designate as Western white all white wheats or mixtures of white wheats containing more than ten per cent of white clubs or sonora.

V. Garlicky Wheat.

Change the definition of garlicky wheat as advocated by the Pennsylvania State Department of Agriculture so as to increase the present limit of ten bulets per 1,000 grams for wheat designated garlicky. If this change be not made a possible alternative would be that the regulations governing licensed inspectors require them to indicate on their certificates for garlicky wheat, in an approximate way, the quantity of garlic found in the wheat.

Mr. Taylor suggested the changes be taken up one at a time and the discussion of moisture took up the entire time of the forenoon session.

Chester Morrill, in charge of the enforcement

ment of the Capper-Tincher Future Trading Act., explained what the change would mean in the grading, that No. 3 would be No. 1.

Wm. J. Farrell, a member of the Chicago Board of Trade grain committee, was the first of the trade to be heard. He said:

At a meeting our members took the position they were opposed to any change in the moisture content. Five years ago the government made some constructive changes and as chief grain inspector at Chicago for the U. S. Grain Corporation I handled 157,000,000 bus. in and 157,000,000 bus. out and never heard any objection to the rules.

If they think this rule will fool any body they are mistaken. The buyer knows the grades.

There would be no value to a warehouse certificate under an excess moisture system. No warehouseman would take in such sample grade wheat "excess moisture" except the owner of the wheat accepted all responsibility.

L. L. Quinby, Omaha, Neb., cited a concrete example that shippers get the real value of better quality wheat irrespective of the grading. The wheat at Exeter, Neb., on one crop had superior gluten strength and shipments from that city got a premium of 2 to 3 cents per bushel over the grade price.

W. B. Stites, Philadelphia, Pa.: The Commercial Exchange is very much opposed to the proposed changes. It would be impossible to warehouse the "excess moisture" wheat except by lots.

Louis Sayre, Chicago, Ill.: The farmer is supposed to determine from the card bids what his wheat is worth, but they would not quote the farmer for excess moisture wheat except on the basis of sample grade. We would have to charge for turning over the excess moisture wheat.

J. B. McLemore, Nashville, Tenn.: Why the country elevator man should pay more money for wheat when he has knowledge of its low milling value I can't see.

H. E. Richter: The Cincinnati market is opposed to changing grades. It would cause confusion without any compensating result. The buyer would have to deduct the cost of drying the excess moisture wheat.

W. K. Woolman, Philadelphia, Pa.: It would be unwise in the opinion of our trade to make any change.

John D. Shanahan, Buffalo, N. Y.: The moisture content should not be unlimited. Wheat over 16 per cent should not be graded.

Laurel Duval, New York Produce Exchange: We are opposed because it applies to all wheats. It is not fair. In effect all "excess moisture wheat would be sample wheat in commerce.

Mr. Church, chief inspector State of Oregon, also representing Washington and Idaho at this hearing: We are practically unanimous in the four states of Montana, Oregon, Washington and Idaho that there be no change in the moisture percentages.

E. P. Peck, Omaha, Neb.: All our business would have to be revolutionized.

Mr. Barry, Indianapolis, Ind.: The Board of Trade, the Indiana Grain Dealers and the Indiana Millers Ass'n feel that the present system is all right. The country elevator man can use the tester, and the sieves to some extent, but he can not bother with the moisture test on the wagon loads as he buys them.

L. A. Cash, St. Louis, Mo.: I can't for the life of me see what difference it makes to the producer. As a buyer of soft and hard winter wheat I will find out about the excess moisture percentage and pay no more than it is worth. For the Merchants Exchange I

wish to state that we are opposed to the change.

P. P. Donahue, Milwaukee, Wis.: We in Milwaukee are emphatically opposed to any change. We can not see what good purpose the changes would serve. They are chasing some rainbows in the Northwest.

J. F. Warren, Minneapolis, Minn.: The Chamber of Commerce is opposed to the changes. You can not get a competent elevator man to buy accurately under the federal grades. He overgrades the wheat.

W. A. Niergarth, rep. the St. Louis Millers: We are opposed to any changes. If there are to be changes we would like to have the maximum moisture content 13½.

W. N. Eckhardt: For the Chicago Board of Trade we oppose any changes in the moisture content as it means a doubling up of grades.

Hiram N. Sager, Chicago: For the country dealer and the farmer shipping to the receiver I would say that any changes should be approached with great care. The change would lead to endless discord between buyer and seller.

A. P. Husband, Chicago, rep. Millers National Federation: Under the definition of flour by the U. S. Dept. of Agriculture the maximum moisture content is 13½ per cent.

Chas. Quinn, Toledo, O.: The members of the Grain Dealers National Ass'n are almost unanimously opposed to the proposed changes. Every point that was brot out here to-day was brot out at a hearing in this city before Sec'y of Agriculture Meredith.

Lee D. Irving, chief grain inspector Board of Trade, Louisville, Ky.: The Louisville Board of Trade is opposed to the change as it would be dangerous in warehousing and shipping.

Adjournment to 2 p. m.

At the afternoon session the other points in the Sec'y's letter to the trade were gone over.

Kansas City Hearing.

H. J. Beasley conducted a similar hearing at Kansas City, Mo., Apr. 7. A committee composed of B. C. Moore, F. C. Vincent and Wm. Murphy, representing the Board of Trade, opposed any change in the wheat standards, that being the sense of the Board of Trade directors.

THE MEXICAN Chamber of Commerce has been organized under the laws of New York to promote business and economic relations between the United States and Mexico. S. L. Alatrisme is pres., with offices in the Woolworth bldg., New York.

Hearing on "Old Tonnage" at Kansas City.

On Mar. 30 and 31, an examiner for the Interstate Commerce Commission conducted at Kansas City a hearing on the request of the Kansas City Board of Trade and the Omaha Grain Exchange to be given advantage of the reduced freight rates in completing movement of grain now in store at those markets.

The grain moved into the elevators on the old rates, and now it is the desire of the dealers that they be permitted to forward it under the milling and handling in transit privilege on the basis of the present, or reduced, rates. About 15,000,000 bus. of grain is said to be involved at the two points, and elevator operators contend that the grain and the products manufactured from it cannot be sold in competition with grain not similarly affected unless the advantage of the lower rate is granted.

W. R. Scott, transportation commissioner of the Kansas City Board of Trade, represented the interests of that market, while J. A. Kuhn, traffic manager for the Omaha Grain Exchange, appeared for his organization. In addition, dealers from the two markets also presented evidence.

A decision is not expected for some time, altho the hearing was advanced at the urgent request of the interests involved.

Asked—
Answered

[Readers who fail to find information desired on any subject of interest to grain dealers should send us their query for free publication here. The experience of your brother dealers is worth consulting. Replies to queries are solicited.]

Is Federal Supervision Worth the Cost?

Grain Dealers Journal: How much does it cost the producers and consumers to have the government supervise the grading of grain? How many carloads did the supervising inspectors raise the grades on last year? How many cars had the grade lowered? Did the results justify the expenditure?—L. B. Wright.

Ans.: For the enforcement of the Grain Standards Act there was appropriated for the fiscal year ending June 30, 1922, the sum of \$538,623.00 out of the general taxation by the Federal Government. This burden fell on the general public and is additional to the fees paid for inspection of each carload to the state and exchange inspectors who draw salaries from the states or exchanges.

Trouble in Tuning Radio?

Grain Dealers Journal: We have trouble in tuning our set. We can get Pittsburgh and Detroit nicely, but can get Chicago only at night, and when we do get Chicago we cannot hear it as well as we do the others. We also have a little trouble with extra noises sputtering in the horn. We have on our machine two condensers, a 2-step amplifier and a 45-volt and a 22.5-volt "B" battery.—Jones & Mathias, by J. L. Mathias, Bethany, Ill.

Ans.: Much yet remains to be learned about radio, but in all probability the difficulty is due to one of the so-called "variables," to inaccuracies in tuning, or to something in the "hook up" of the set. It might be possible to overcome it by careful and well informed experiment, and again it might not. The following statement from G. H. Jaspert, of the Radio Publicity Dep't of the Westinghouse Electric & Mfg. Co., is interesting in this respect:

"As is well known, radio has many variables. Though the Westinghouse Pittsburgh Station KDKA is heard practically thruout the west, there are some localities within 100 miles where it cannot be heard. This also applies to other broadcasting stations.

"In the case of the Westinghouse Chicago Station KYW, several such reports have been received, and it is hoped this will be overcome with the installation of a permanent aerial, which will be 125 ft. high and have a span of 220 ft. The present aerial of this station is 50 ft. high and has a span of 70 ft.

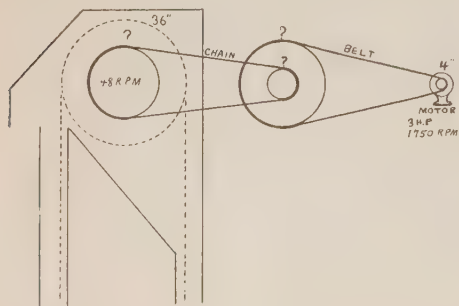
"The new aerial will probably be completed by May 15."

Sizes of Pulleys and Motor for Elevator Leg?

Grain Dealers Journal: An elevator leg 64 feet high has 10x6 buckets 12 inches apart on 129 feet of belt and runs at a speed of 48 r. p. m. over a 36-inch head pulley.

Will a 3-h. p. motor running at 1,750 r. p. m. be large enough to take care of the load if installed at the top of the elevator? Motor pulley is 4 ins. diameter.

With a belt drive from motor to countershaft and chain drive from countershaft to



What Sizes of Pulleys and Motor for This Leg?

head pulley what should be the sizes of the different pulleys?—Farmers' Elevator Co., Clutier, Ia.

Wichita Dealers "Buy" Hotel for Convention.

The convention of the Kansas Grain Dealers Ass'n, to be held in Wichita May 16, 17 and 18, will be in the Broadview Hotel. This is a new hotel, not yet actually in operation, and the meeting of grain dealers will be its first convention.

Wichita dealers have made arrangements for the exclusive use of the Broadview during the convention period, and no other guests will be received. As manager Chas. L. Way expresses it, the "grain men can have their own way."

Sessions of the convention will be held in the Roof Garden.

Texas Convention in New Hotel.

The 25th annual convention of the Texas Grain Dealers Ass'n, to be held in Fort Worth May 26 and 27, will be the first meeting of dealers of the Lone Star State in that city for several years. It will also be one of the early conventions in the new Texas Hotel, which stands on the site of the old Worth Hotel, where the first regular meeting of the ass'n after its organization was held in September, 1898.

It is quite fitting that the organization should return for the celebration of its 25th anniversary to the spot where its first birthday was spent. There is a vast difference, however, in the appearance of the spot now and in 1898, for today there stands upon it a modern hotel that would do credit to any city, and that makes the Worth Hotel of memory a pigmy in comparison.

Pres. John E. Bishop, of Houston, recently sent to each member a letter urging attendance at the convention, as matters of the greatest importance are before the trade for consideration at this time.

THE REQUEST of the Canadian Council of Agriculture for the reestablishment of the Canadian Wheat Board to handle the wheat produced in the Dominion has been referred to the agricultural com'tee of the house of commons. The government is not thought to favor a compulsory wheat board, but representatives of western Canadian farmers are imperative in their demands for it.

A DECREASE in business failures is predicted by J. H. Tregoe, sec'y of the National Ass'n of Credit Men, who said that since Mar. 1 no decided change in business conditions can be recorded, but we believe firmly that the upward trend continues. Even a slight improvement monthly is ground for gratification.

Coming Conventions.

April 11, 12. Western Grain Dealers Ass'n at Des Moines, Ia.

April 19, 20. Missouri Grain Dealers Ass'n at St. Louis, Mo.

May 9. Panhandle Grain Dealers Ass'n at Amarillo, Tex.

May 9, 10. Illinois Grain Dealers' Ass'n at Peoria.

May 11, 12. Oklahoma Grain Dealers Ass'n at Oklahoma City.

May 16, 17, 18. Kansas Grain Dealers Ass'n at Wichita.

May 26, 27. Texas Grain Dealers Ass'n at Fort Worth.

May 29, 31. Southern Seedmens Ass'n at New Orleans, La.

May 31, June 1, 2. Millers National Federation at Kansas City, Mo.

June 19, 20. Wholesale Grass Seed Dealers Ass'n at Chicago.

June 21, 22, 23. American Seed Trade Ass'n at Chicago.

July 25, 27. National Hay Ass'n at Cedar Point, O.

Oct. 2, 3 and 4. Grain Dealers National Ass'n at New Orleans, Ia.

Grain Dealers National to Meet at New Orleans.

The directors of the Grain Dealers National Ass'n have decided to hold the 26th annual meeting of the Ass'n at New Orleans, La., on Monday, Tuesday and Wednesday, Oct. 2, 3 and 4.

A reduced rate of fare and one-half for the round trip is expected to be granted by the railroad companies.

Hearing on Irregularity in Corn Grading.

Following the complaint by the Peoria Board of Trade against the lack of uniformity in grading of corn, published on page 387 of the Journal for Mar. 25, a hearing was held at Peoria, Ill., Mar. 29 by Fred G. Smith, in charge of inspection efficiency, and J. H. Frazier, assistant to officer in charge of general field headquarters at Chicago.

Besides the grain com'tee Geo. W. Cole, T. A. Grier, J. A. McCreery and Mr. Wrigley were heard during the forenoon in support of the allegations that grading was less severe at outside markets.

In the afternoon the supervision officials gave figures on the relative market prices at Peoria and Chicago. During the noon hour the officials had gone over some of the records of one of the heaviest shippers and found that the Peoria grades on 39 cars had been lowered on arrival at other cities.

Mr. Frazier stated the idea prevailing that the supervision would step on an inspector because he was grading grain too liberally was erroneous. It was no more a crime to grade grain too low than too high. In fact the instructions are to give the grain the benefit of any doubt.

The supervision officials as the result of the hearing have gotten into touch with country shippers tributary to the Peoria market.

Chicago Board to Check Insolvency.

The directors of the Chicago Board of Trade on Apr. 4 approved for ballot by members two amendments to the rules of the Board intended to safeguard other members and customers against insolvency of a member who has permitted his finances to become involved.

Rule IV is to be amended by adding the following to Sec. 6:

The Board of Directors may deny to any member using his individual name as a party to contracts entrance to said Exchange Hall, and prevent any such members from making any trades therein when such member, or a firm of which such member is a partner, or a corporation of which such member is a qualifying officer under Section 11 of Rule XXII, shall be found by the Board of Directors, or any duly constituted committee, to be in an insolvent condition.

Sec. 13 of the same Rule is to be amended by inserting the matter in boldface type below:

Sec. 13. If in any investigation or trial before the Board of Directors, or before any other duly constituted committee or other tribunal of the Association, any member who shall have been cited by the President, or the Chairman of any duly constituted committee or other tribunal of the Association to appear, testify and produce his books and papers, shall neglect or refuse to so appear and testify or to produce his books and papers, or, if testifying, shall refuse to answer any question which may be by a majority vote of the said Board of Directors, committee or other tribunal, be declared proper and pertinent to the case in hearing, or, if any member using his individual name as a party to contracts, or if any member either as a partner in a firm or an officer or manager of a corporation, shall refuse to give any auditor appointed by the Board of Directors, or by any duly constituted committee of the Board, access to, and the privilege of examining the books and papers of such member, firm or corporation after being directed by said Board of Directors or such committees to give such access, he shall be subject to suspension by the said Board of Directors from all privileges of the Association, for such period as said Board may determine; action under this section may be had on the report in writing of any such committee or other tribunal, in case the contempt shall occur before it. It is hereby provided that no witness shall be compelled to answer any question which shall criminate himself; nor shall any testimony be admitted which, in the opinion of the committee or other tribunal, is irrelevant to the case in hearing.

Letters

[Here is the grain dealers' forum for the discussion of grain trade problems, practices and needed reforms. When you have anything to say of interest to members of the grain trade, send it to the Journal for publication. It may draw out the views of others.]

Hearing on Gulf Rates to Be Continued.

Grain Dealers Journal: The hearing which started at Galveston on Mar. 27 lasted a week, and it will be continued April 10. It was conducted by an examiner for the Interstate Commerce Commission, and the matter considered was the request of the Galveston Commercial Exchange and other organizations representing Houston, Beaumont, and other Texas ports, to have a differential of 5c made between rates to Galveston and to New Orleans on grain from territory south of the Union Pacific in Kansas for export thru those ports. Under the petition, the rates to New Orleans would be 5c higher.

We are convinced the petitioners failed to make a case. We presented evidence to show that Galveston has not been able to take care of the business tendered it from 1900 to date. We also showed that during 1921 many cars of grain remained on track from 30 days to 5½ months. I submitted evidence showing that out of the 128,000,000 bus. of wheat in Kansas in 1921, 92,000,000 bus. was produced south of the main line of the Union Pacific, for which Galveston is asking a differential in favor of Galveston over New Orleans.

Persons to whom I have talked say they are sure the I. C. C. will not grant the differential until Galveston has sufficient elevator facilities to take care of the business tendered.

I was told by the examiner that it will likely be a year before the case is decided.—E. J. Smiley, sec'y Kansas Grain Dealers Ass'n, Topeka.

Letting Contract for New Elevator.

Grain Dealers Journal: On April 6th we bid on a job with six other bidders. The bids ran as follows: \$47,161.00; \$47,815.00; \$53,589.00; \$53,990.00; \$55,000.00; \$58,000.00; \$59,419.00.

The owners called for bids to be in at 7:30 p. m. The last train for the day left at 7:05 p. m. No consideration was given to the convenience of the some twenty bidders and materialmen interested in the awarding of this contract.

The two lowest bidders were asked to see the owners at 9:00 a. m. the next day.

It occurs to us that the logical way to arrive at the proper party to give this contract to, was to have added all the bids together and then divided by seven, which would give you \$53,282.00. The logical one to have given this contract to was No. 3 who bid \$53,589, as he was the nearest to the average price of all the bidders.

It is only reasonable to suppose that the low bidders would get scared by the figures and will at once start to see how they can skin the job, so as to get out even.

Of course, the high bidder should be proud of his figures because he knows he was safe.

The man in the middle feels sore because he has the conviction that his figures were nearer right both to himself and to the owner.

If owners could be educated along this line, we believe it would be elevating to the contractors in that they would not try to figure on skin work and to the owners in knowing they are adhering to the law of average, which should govern us all.—Very truly, P. F. McAllister & Co., by P. F. McAllister, Bloomington, Ill.

Insurance for Ass'n Members.

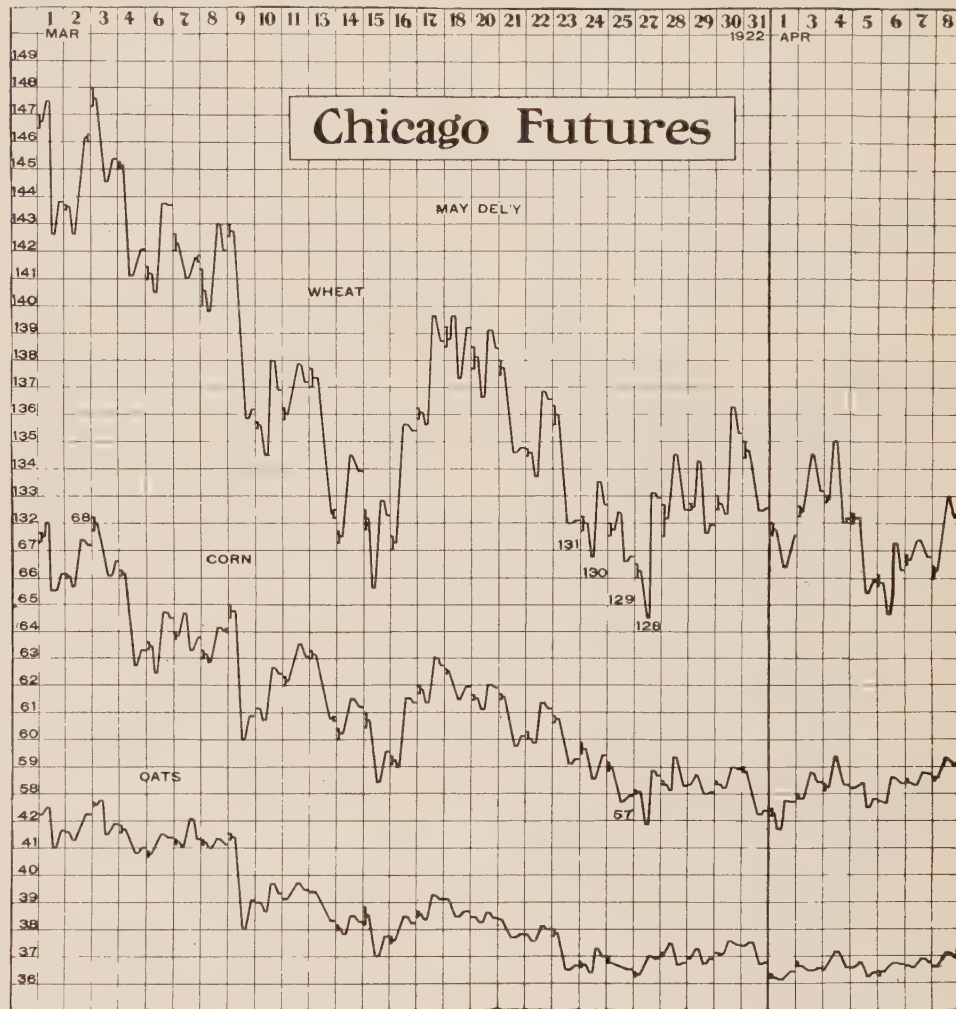
A new feature of service to its members is being made use of by the Indiana Grain Dealers Ass'n, which has made arrangements with one of the large life insurance companies to insure all members of the Ass'n who desire it on the group or wholesale plan.

The policy issued to members proper carries a death benefit of \$2,000, payable in event

of death at any age, time or place or for any cause whatsoever. A \$1,000 policy is also provided for the employes of ass'n members.

The cost is materially lower than that of individual policies.

The Western Grain Dealers' Ass'n has sent an explanation of the plan to its members, and it will be presented for consideration and possible approval to the annual convention of the ass'n.



Daily Closing Prices.

The daily closing prices of wheat, corn, oats, rye and barley for May delivery at the following markets for the past two weeks have been as follows:

MAY WHEAT.													
	Mar. 25.	Mar. 27.	Mar. 28.	Mar. 29.	Mar. 30.	Mar. 31.	Apr. 1.	Apr. 3.	Apr. 4.	Apr. 5.	Apr. 6.	Apr. 7.	Apr. 8.
Chicago	130½	132½	132½	131½	135½	132½	131½	133½	132½	129½	130½	130½	132½
Kansas City	118½	120	119½	118½	121½	119½	118½	119½	*	116½	117½	117½	118½
St. Louis	127½	128½	128½	128½	132½	128½	128	129½	129	126½	127½	128	129½
Minneapolis	138½	141½	140½	139½	142½	140	140½	140½	140½	139½	140½	141½	142½
Duluth (durum)	118½	120½	120½	120½	123½	120½	121½	124½	124½	124	124½	125½	126½
Winnipeg	133½	135½	134½	133½	135½	133½	132½	131½	133½	131½	132	132	133½
Toledo	139	140½	140½	140	143½	140½	139½	141½	140½	138	138½	139	140½
Milwaukee	131	133	132½	132	135½	132½	131½	133½	132½	129½	130½	130½	132½
MAY CORN.													
Chicago	57½	58½	58½	58	58½	57½	57½	58½	58½	57½	58½	58½	59
Kansas City	52½	52½	52½	52½	52½	51½	51½	52½	*	51½	52½	52½	52½
St. Louis	56½	57½	57½	56½	57½	56½	56½	57½	57	56½	57½	57½	57½
Milwaukee	57½	58½	58½	58½	58½	57½	57½	58½	58½	57½	58½	58½	59
MAY OATS.													
Chicago	36½	36½	36½	36½	37½	36½	36½	36½	38½	36½	36½	36½	36½
Kansas City	33½	33½	33½	33½	33½	33½	32½	33½	*	33½	33½	33½	33½
St. Louis	37	37½	37½	37	37½	37½	37	37½	37½	37½	37½	37½	37½
Minneapolis	31½	32	31½	31½	32½	32	31½	31½	31½	31½	31½	32	32½
Winnipeg	47½	47½	47½	46½	47½	46½	46½	46½	46½	46½	46½	46½	47½
Milwaukee	36½	36½	36½	36½	37½	36½	36½	36½	36½	36½	36½	36½	36½
MAY RYE.													
Chicago	102½	103½	103½	102½	103½	101½	100½	101½	101	101½	101½	101½	102½
Minneapolis	92½	93½	93½	93½	94½	92½	91½	92½	91½	91½	92	92	92½
Duluth	98	99	98½	98	98½	97½	96	96½	96½	97	96½	97½	97½
Winnipeg	101½	102½	102	102½	102½	101½	100	100½	100	99½	100	100½	101½
MAY BARLEY.													
Chicago	66	66½	67½	67½	67½	67	67	67	67	66	66	65½	65½
Minneapolis	58	58½	58½	57½	58½	57½	57	56½	55½	55½	55½	56½	56½
Winnipeg	65½	66½	66	65½	66½	65½	65½	65½	65½	65½	65½	65	65½

*Holiday.

Crop Reports

Reports on the acreage, condition and yield of grain and field seeds, as well as on the movement to country markets, are always welcome.

ARKANSAS.

Little Rock, Ark., Mar. 31.—Oats in excellent condition. Corn not yet planted generally.—S. H. Johnson, v. p. and f. t. m. C. R. I. & P. Ry.

COLORADO.

Montrose, Colo., Mar. 25.—Ideal weather for spring planting.—L. F. Flower.

Denver, Colo., Mar. 31.—Spring wheat now in process of planting, and there will be a larger acreage than last year. Weather has been favorable for spring plowing. In eastern part of state wheat and rye conditions are generally good.—S. H. Johnson, v. p. and f. t. m. C. R. I. & P. Ry.

ILLINOIS.

Springfield, Ill., Apr. 5.—The ground is saturated and seeding operations continue at a standstill. Farmers are showing considerable interest in soy beans. Winter wheat is in fine condition and is making good growth, but some is under water.—Clarence J. Root, meteorologist.

Chicago, Ill., Mar. 31.—In northern Illinois very little progress has been made in farming operations. Winter wheat growth is about normal compared with last year. Central Illinois shows a little increase in acreage of small grains. Winter wheat doing nicely, and acreage exceeds that of last year.—S. H. Johnson, v. p. and f. t. m. C. R. I. & P. Ry.

Spencer, Ill., Mar. 25.—Winter wheat looks fine on high ground, but has been killed on low ground. Acreage about same as last year, but spring wheat acreage will be increased about 10% if weather permits. Corn and oats acreage will be decreased about 10%.—New Lenox Grain Co.

Springfield, Ill., Mar. 30.—Field work has been practically impossible and apprehension is growing daily over the delay in plowing and the seeding of oats. Winter wheat condition more optimistic than anticipated earlier, especially over heavier acreage areas. Some thinning out in northern counties due to open winter, with scattered damage due to flooding of poorly drained spots in fields and bottom lands elsewhere in state. Rye continues to show satisfactory growth quite generally.—A. J. Surratt, agricultural statistician.

INDIANA.

Mishawaka, Ind., Mar. 30.—Wheat is in A1 condition.—Grange Elvtr. Co., A. E. Castleman, mgr.

IOWA.

Lanesboro, Ia., Mar. 18.—Very little sowing done.—Farmers Elvtr. Co.

Des Moines, Ia., Mar. 31.—Winter wheat and rye in good condition in northern and southern part of state; fine stand and good color. Indications are there will be a smaller acreage of corn and increased acreage of clover and timothy. In central and western part of state acreages to be planted will be about the same as last year. Fall wheat looking good. Little seeding has been done in northwestern Iowa.—S. H. Johnson, v. p. and f. t. m. C. R. I. & P. Ry.

KANSAS.

Kanona, Kan., Mar. 24.—Plenty of moisture and wheat is starting fine.—J. A. Stinson.

Ottawa, Kan., Mar. 31.—Wheat in this territory in excellent condition.—The Ross Milling Co., C. B. Ross.

Varner, Kan., Apr. 1.—Prospects for wheat good; about 5% abandoned.—J. W. Wheeler, mgr. Consolidated Flour Mills Co.

Oxford, Kan., Apr. 7.—Plenty of rain and the wheat is looking fine. About 90% average.—M. C. Herschberger, agt. Hunter Mill & Elvtr. Co.

Topeka, Kan., Mar. 31.—Crop conditions are favorable. Wheat in central, northern and northwestern part of state is estimated to show condition of 70% to 90%. Corn acreage will be increased. In southern and southeastern sections crop conditions are very favorable. Oats sowing well under way. In southwestern section soil in fine condition and farmers preparing

for their spring seeding of oats, barley, etc. Conditions southwest of Hutchinson not so favorable as they were this time last year.—S. H. Johnson, v. p. and f. t. m., C. R. I. & P. Ry.

MINNESOTA.

Browndale, Minn., Mar. 23.—Snow all gone. With a week or 10 days of good weather seeding should start. Acreage about same as last year.—Hunting Elvtr Co., C. M. Syck, agt.

MISSOURI.

Kansas City, Mo., Mar. 31.—In central Missouri, wheat condition about 80% of normal; rainfall during winter was light and the plant made small growth, stooling little. Seeding of oats delayed by weather. In northwestern part of state wheat condition is good and plant greening nicely. Some poor fields showing signs of improvement with favorable weather. Acreage in latter section 10% to 15% below last year.—S. H. Johnson, v. p. and f. t. m., C. R. I. & P. Ry.

MONTANA.

Great Falls, Mont., Apr. 1.—There has been a good covering of snow in all the winter wheat territory and no harm has been done to the plant. The condition is practically perfect. Montana farmers are not discouraged over the light crop of spring wheat last season and there is a disposition to plant at least a normal acreage this spring. More than the normal acreage of ground was prepared last fall and the abundance of moisture is an incentive for planting.—J. Watkins, sec'y Northwestern Grain Dealers Ass'n.

NEBRASKA.

Bradshaw, Neb., Mar. 28.—Wheat in this territory looks good.—C. L. Gilbert.

Omaha, Neb., Mar. 31.—Owing to lack of rain during fall and winter, and very light snows, winter wheat is not in as good condition as at this time last year. Much depends upon the extent of moisture in the next 30 or 60 days, as recent rains have been of great benefit. Rye condition 90% to 95%.—S. H. Johnson, v. p. and f. t. m., C. R. I. & P. Ry.

NEW MEXICO.

Tucumcari, N. M., Mar. 31.—Wheat conditions very discouraging. Not over 50% planted and not much of a crop is expected. With favorable conditions a large row crop will be planted.—S. H. Johnson, v. p. and f. t. m., C. R. I. & P. Ry.

NORTH DAKOTA.

Scranton, N. D., Mar. 22.—Prospects for crop are good.—Scranton Equity Exchange, H. E. McKennett, mgr.

OHIO.

Ingomar, O., Mar. 31.—Wheat looks fine. Some oats seeded.—O. Klepinger, by R. O. Klepinger.

OKLAHOMA.

Oklahoma City, Okla., Mar. 31.—Twenty per cent of the wheat acreage has been plowed up on account of dry weather before the heavy rains of Mar. 25, but condition of wheat has been improved since. Many fields that looked poor or had not sprouted are beginning to turn green. In central and western section, 20% will be put in oats, corn and cotton. Spring plowing nearly completed.—S. H. Johnson, v. p. and f. t. m., C. R. I. & P. Ry.

TEXAS.

McKinney, Tex., Apr. 1.—Wheat looking well. Corn about all planted. Practically all oats killed by frost; were replanted and are doing well.—Harrison & Co.

Kings Mills (Ecla p. o.), Tex., Apr. 5.—Will have about one-third of a crop of wheat as we have ample moisture at this time. Some wheat fields are being replanted to barley, oats and sorghums. Wheat fields greening in this territory and it is the same from Amarillo to Canadian on the Santa Fe.—Ecla Grain Co., C. R. Holman, mgr.

Amarillo, Tex., Mar. 31.—Favorable conditions from now on in the Panhandle will produce 50% of a wheat crop. A much larger acreage than usual will be planted to spring wheat, oats and barley. Acreage of wheat in east central and north central portions of state 12% less than last year and condition 60% of normal; acreage of oats, 95% of last year and condition 75%. Corn acreage will be 5% over last year, and barley acreage will be increased about 3%.—S. H. Johnson, v. p. and f. t. m., C. R. I. & P. Ry.

"PALACE GREEN" has been registered as trademark No. 159,281 by Ivan Ostberg, Chicago, Ill., for use with grass seed.

Government Crop Report.

Washington, D. C., Apr. 7.—The Crop Reporting Board of the Bureau of Markets and Crop Estimates makes the following estimates:

Winter Wheat: The average condition on Apr. 1 was 78.4% of a normal, against 91.0 on Apr. 1, 1921, 75.6 on Apr. 1, 1920, and 84.3, the average condition for the past ten years on Apr. 1. There was an increase in condition from Dec. 1, 1921, to Apr. 1, 1922, of 2.4 points, as compared with an average decline in the past ten years of 4.7 points between these dates. Upon the assumption of average abandonment of acreage and average influences on the crop to harvest, the condition Apr. 1 forecasts a production of about 572,974,000 bus., which compares with 587,032,000 bus., the estimated production in 1921, 610,597,000 in 1920, and 578,575,000 bus. the average of the preceding five years.

Rye: The average condition on Apr. 1 was 89.0% of a normal, against 90.3 on Apr. 1, 1921, 86.8 on Apr. 1, 1920, and 88.5 the average condition for the past ten years on Apr. 1.

The condition of rye on Apr. 1 forecasts a production of approximately 69,667,000 bus.; the estimated production in 1921 was 57,918,000 bus., the 1920 crop 60,490,000, and the average of the preceding five years 66,474,000 bus.

Comparisons for winter wheat and rye states follow, condition figures representing per cent of normal:

States.	WINTER WHEAT.				RYE.			
	Condition—		Dec.		Condition—		Dec.	
	April 1, 1922.	10-yr. av. 1912-1921.	April 1, 1922.	10-yr. av. 1912-1921.	April 1, 1922.	10-yr. av. 1912-1921.	April 1, 1922.	10-yr. av. 1912-1921.
Mass.	90	94	90	94	90	94	90	94
Conn.	85	89	85	89	85	89	85	89
N. Y.	85	89	85	89	85	89	85	89
N. J.	90	96	87	92	93	95	89	93
Pa.	92	97	88	95	91	97	90	96
Del.	93	97	87	93	92	95	89	93
Md.	89	95	88	90	90	93	88	91
Va.	92	92	90	87	92	92	90	89
W. Va.	92	92	89	93	93	93	90	93
N. C.	96	94	90	92	95	93	90	93
S. C.	86	87	86	92	87	86	87	90
Ga.	91	90	86	94	92	87	88	95
Ohio	87	87	82	93	92	91	87	97
Ind.	90	89	80	92	92	92	87	95
Ill.	93	96	81	93	93	94	89	95
Mich.	83	90	84	92	88	92	88	94
Wis.	85	83	88	94	92	88	91	95
Minn.	87	88	87	92	90	88	89	95
Iowa	92	94	86	94	93	96	92	96
Mo.	88	93	84	87	90	93	88	90
N. D.	88	88	88	94	88	84	85	92
S. D.	90	89	88	92	94	90	90	95
Neb.	80	93	85	80	85	92	91	88
Kan.	65	88	81	60	65	92	87	65
Ky.	94	95	85	95	93	95	88	93
Tenn.	95	94	84	93	92	93	85	94
Ala.	89	88	86	89	90	86	86	91
Miss.	88	90	86	90	88	88	88	90
Texas	57	88	80	42	60	88	76	40
Okla.	64	89	84	54	67	91	86	65
Ark.	86	91	87	77	86	92	89	86
Mont.	70	78	90	58	80	84	93	66
Wyo.	85	85	92	71	93	91	94	75
Colo.	77	85	89	76	86	90	89	79
N. M.	30	90	88	50	88	88	88	90
Ariz.	95	80	93	95	88	88	88	90
Utah	89	97	95	80	94	100	95	80
Nev.	88	93	96	85	88	88	88	90
Idaho	92	97	94	81	96	97	95	83
Wash.	85	100	90	79	90	98	94	88
Ore.	90	99	95	92	92	97	97	94
Cal.	94	93	89	90	88	88	88	90
U. S.	78.4	91.0	84.3	76.0	89.0	90.3	88.5	92.2

AN INVESTIGATION by the Federal Trade Commission into the cause of the present depressed price of cotton, and into the operation of the cotton exchanges, was authorized by a resolution introduced in the senate by Senator Dial, of North Carolina, and adopted Mar. 29.

Oats Movement in March.

Receipts and shipments of oats at the various markets during March, compared with March, 1921, were as follows:

	Receipts—		Shipments—	
	1922	1921	1922	1921
Baltimore	142,382	145,193	20,020	137,857
Chicago	5,553,000	6,089,000	6,092,000	5,488,000
Cincinnati	348,000	492,000	194,000	336,000
Duluth	130,760	889,154	25,759	4,175
St. William	4,563,268	4,740,665	1,146,620	897,651
Indianapolis	888,000	1,068,000	634,000	1,040,000
Kansas City	377,400	447,100	538,500	463,500
Los Angeles, cars	20	19	19	19
Milwaukee	1,903,500	1,072,305	1,957,125	470,300
Minneapolis	2,180,490	1,433,920	3,262,750	1,101,310
New York	2,858,000	2,510,000	2,510,000	2,510,000
Omaha	694,000	650,000	828,000	594,000
St. Joseph	52,000	108,000	66,000	86,000
St. Louis	1,886,000	2,652,000	1,864,440	2,209,360
San Francisco,				
tons	2,644	738		
Toledo	196,800	229,600	187,875	174,586
Wichita	7,500	5,000	5,000	5,000

[For movement of Rye, Barley, Corn and Wheat see page 452.]

Grain Movement

Reports on the movement of grain from farm to country elevator and movement from interior points are always welcome.

COLORADO.

Montrose, Colo., Mar. 25.—Wheat movement light.—L. F. Flower.

ILLINOIS.

Springfield, Ill., Mar. 30.—Corn reserves uneven but fairly liberal for the state, with bulk of holdings in strong hands.—A. J. Surratt, agricultural statistician.

INDIANA.

Mishawaka, Ind., Mar. 30.—No oats in farmers' hands. Lots of corn and wheat moving.—Grange Elvtr. Co., A. E. Castleman, mgr.

IOWA.

Lanesboro, Ia., Mar. 18.—No corn moving.—Farmers Elvtr. Co.

KANSAS.

Varner, Kan., Apr. 1.—Some wheat coming in.—J. W. Wheeler, mgr. Consolidated Flour Mills Co.

MINNESOTA.

Browndale, Minn., Mar. 23.—Very little grain moving; price not satisfactory.—Hunting Elvtr. Co., C. M. Syck, agt.

NEBRASKA.

Bradshaw, Neb., Mar. 28.—Much of the corn was fed here this season.—C. L. Gilbert.

BROKERS are not liable to a customer for damages in settling his short sales when the customer could not have furnished the certificates except at a higher price than the sale price. Having been ordered by the customer to sell short the brokers had a right to require the customer to furnish the certificates or to make good the damages growing out of the customer's failure to do so, said Judge Lehman at New York Feb. 25 in the case of Pearl & Co., suing to recover \$1,450 from a customer, Louis Lipson, who sold Stutz shares short.

Exports of Grain Weekly.

[From Atlantic and Gulf Ports, in Bus., 000 Omitted.]

	Wheat.			Corn.			Oats.		
	1921.	1920.	1921.	1920.	1921.	1920.	1921.	1920.	1920.
July	2...	5,586	6,851	1,848	56	1,084	26		
July	9...	5,981	5,771	2,817	35	1,154	800		
July	16...	5,807	8,556	3,016	89	1,159	322		
July	23...	5,359	8,990	3,132	157	908	1,006		
July	30...	7,015	7,033	3,192	43	1,895	867		
Aug.	6...	10,355	6,375	2,897	52	2,068	353		
Aug.	13...	7,777	7,220	1,787	102	511	9		
Aug.	20...	9,682	6,919	2,254	63	800	46		
Aug.	27...	12,628	11,253	2,839	122	499	166		
Sept.	3...	8,690	6,425	1,469	9	184	52		
Sept.	10...	10,609	8,203	2,223	55	338	130		
Sept.	17...	8,200	10,902	3,981	67	390	50		
Sept.	24...	7,515	10,572	3,341	76	125	119		
Oct.	1...	8,186	7,476	3,025	75	255	112		
Oct.	8...	7,395	7,427	2,302	297	168	186		
Oct.	15...	5,210	9,345	2,925	323	99	226		
Oct.	22...	7,782	7,985	1,999	401	67	368		
Oct.	29...	7,849	8,189	1,136	212	80	275		
Nov.	5...	4,944	7,768	1,790	463	217	238		
Nov.	12...	6,291	6,072	1,513	474	228	475		
Nov.	19...	5,907	8,113	2,145	1,061	612	466		
Nov.	26...	4,153	7,988	1,624	170	612	185		
Dec.	3...	7,420	8,009	2,108	466	565	180		
Dec.	10...	5,748	7,256	1,172	209	270	21		
Dec.	17...	6,018	7,924	2,424	231	608	85		
Dec.	24...	6,267	6,510	2,253	250	588	124		
Dec.	31...	4,685	9,509	1,176	144	561	34		
Jan.	7...	5,484	9,429	3,008	504	341	249		
Jan.	14...	5,747	6,457	2,651	264	430	185		
Jan.	21...	5,455	4,782	3,363	1,029	602	139		
Jan.	28...	3,473	6,257	5,937	1,130	465	237		
Feb.	4...	3,215	8,814	4,712	1,476	237	195		
Feb.	11...	2,499	5,131	4,770	1,240	313	150		
Feb.	18...	3,803	4,776	4,851	1,155	370	312		
Feb.	25...	4,731	3,963	5,058	1,518	650	125		
Mar.	4...	5,484	5,469	6,351	3,153	348	209		
Mar.	11...	3,349	4,390	5,365	2,182	741	68		
Mar.	18...	4,630	4,847	4,312	2,720	864	289		
Mar.	25...	3,279	2,550	3,778	3,299	1,109	62		
Apr.	1...	3,884	5,437	4,754	1,844	655	262		

Total since July 1... 248,092 287,148 121,298 27,216 22,997 9,403

Revival of Agriculture Assured

(From an Address by Julius H. Barnes)

In Russia the theory of government-control of the practices of industry and of the relations in the social structure has been carried to an extreme perhaps never before experienced in world history.

The American theory of government is that government is organized solely for the purpose of securing the equal rights of individuals. We who believe that only in the atmosphere of perfect equality of opportunity for individual effort can sound social progress be made, must be constantly on our guard against the extension of autocratic and bureaucratic control into the social relation. Under the stress of war necessity, we saw our government injected into the processes of financial, commercial and industrial life. Vast government loans were floated, with a more or less deliberate use of the influence of inflation through control of the Reserve System. The railroads were taken over for government operation, under the need of priority of service in the prosecution of war. A government fleet was constructed with national finance, because the replacement of submarine losses was too vast a task for individual production. War would not wait the slower processes of the demonstration of natural need and the development of private facilities to meet that need.

The influence of this reliance on Government authority still remains with us, tho I believe it to be true that, guided by the record of railroad and steamship disappointment, public opinion is rapidly crystallizing against the centralization of control. Within the past two months there was seriously proposed in Washington a project to restore the relation of farm commodity prices with the average prewar commodity index by using the national authority to levy a tax on every bushel of wheat and pound of cotton sold, construct an impenetrable wall of customs duties around our country, vest a semi-private corporation with the sole right of export of our surplus, maintain the domestic price in the commodity index relation and market the surplus in the world market at a loss, to be deducted from the involuntary contribution of every grower. So far had impatience with the slower recovery of natural law progressed that it would have risked the wrecking of the entire business machinery and banking structure of America in such a hopeless task. Such a fixture of price relation would have stifled the natural incentive to economy in the various manufacturing processes of various commodities. The injustice that would surely follow it is indicated when I tell you that two factors which would have made that commodity index on which the artificial relation of farm products was to be attempted, were, for instance, rubber, at 18% of the pre-war price, and at the same time, tobacco, at 375% of the pre-war price.

We have a right to claim ourselves perhaps the best informed and most intelligent Democracy thus far developed, but we can maintain our leadership only if we have men and women who understand the danger of injecting autocratic control, directed by the individual judgment of small groups, no matter how selected, into the intricate processes of natural law, on which solely rest the opportunities for individual advancement and therefore individual happiness.

Today, among us, a group of people cry for the resumption of trade relations with Russia. There is no obstacle, except this record of faithlessness which makes it hazardous for anyone to entrust goods or persons there. If you are injured or aggrieved, there are no courts to whom you can appeal for justice and redress. If you desire to enter a chosen field of business or trade, you may find the field already occupied by a government monopoly which excludes you from activity, or a government monopoly may be created over-night, to the destruction of all your time and treasure, and, again, no court to whom you can appeal for redress of damage. The political and social structure is one in which it is impossible for industry to function on the American ideal of equality of opportunity for every individual.

The American authorities have properly, I believe, in the response to the Genoa invitation, advised the other Governments of Europe that the exploitation of Russia by such as these closed concessions and monopolies, will not meet our approval, who believe that equality of opportunity and equality before the law is the primary protection due to every human. Russia has traveled a long way back toward the so-called "capitalistic" processes which have been evolved as just and fair and lasting out of centuries of human progress, but there is still a section of the road to traverse before Russia can exist in the company of self-respecting nations.

But I am glad to believe that, with the dawning comprehension of a Russian people we have written the word "America" firmly into their national history as a people of great friendliness

and a people of great effectiveness in making that friendliness and humanity felt, at this time of their direst need. Across five thousand miles of ocean, through disused wharves and broken-down railways, American corn today feeds two million children and five million adults, who must otherwise surely perish. Surely, if there were ever a case of bread cast upon the waters returning in not too many days, it has been this relief of Russian famine by America.

This action, grounded in humanity, has proved itself the most intelligently selfish act we could have possibly planned in the salvation of our American farm. Three months ago the American farm groaned beneath a load of production so large that its production had fallen beneath that weight. It is the last straw that breaks the camel's back, and it was the last accumulation in trade channels which brought depressed prices for American grain.

Communist Russia had broken down production of its farms until twenty million people were threatened with extermination.

Capitalistic America bridged the gap, fed the starving, and wrought the salvation of its own farms.

The accent to the world that America, on whom the world depended for seventy-five per cent of its bread, must also supply its chief former competitor in world production, marked the turn in the price course of the world's markets. Jan. 19, the price of wheat in Buenos Aires, the market-place of our chief competitor, Argentine, was ninety-five cents per bushel. Five weeks later the price had risen to \$1.45, under the impulse of a world demand stimulated by the demonstration of Russia's dependence on American foods. At the same time, reviving confidence in the recuperation of Europe brought also the will to buy, and the ability to pay for American farm production. What has this advance meant to the American farm?

The price of corn was as low as sixteen cents per bushel on Oct. 18, at the far stations of Nebraska. By March 1 the price had advanced to 39 cents, or an increase of 150 per cent, all of which increase goes into the farmer's pocket. Taking the State of Nebraska as typical, the Governor of Nebraska has recently made this statement: That the increase in the value of farm products in that single State has been from \$392,000,000 last Nov. 1 to \$457,000,000 Mar. 1. That is, it seems reasonable to calculate that the buying power of this single State has increased in the past four months by \$65,000,000 on its farm products alone. This is a very significant change of base, and one which furnishes the foundation for the soundest optimism.

It would be unfair and unkind in recording the improvement thus in farm position not to give due credit to the intelligent action of the War Finance Corporation, with its well distributed loans which enabled many farmers in many lines of farm products to wait a favorable turn in the market, instead of being forced to liquidate at the very depth of the price depression. Recently, the Sec'y of Agriculture, the Chairman of the War Finance Corporation, and the President himself, have all recorded these favorable turns for the better in the basic industry of agriculture.

On Nov. 22, 1921, the average price of hogs in Chicago was 6.65 cents per pound, and this had risen by Mar. 3 to 11.15 cents, an increase of 70 per cent.

Cotton, which stood as late as May last at an average farm price of 9.4, had risen by October to 19.8 cents, an increase of 110 per cent, all of this increase going into the pockets of the cotton grower and seller.

The American farmer can be told today that the day of opportunity for agriculture has arrived, here and now. It can be told that thrift and energy in agricultural pursuits may now count with confidence on the reward of those fundamental qualities. The pre-war relation between the prices of the chief farm products and the general commodity index has been actually restored, and restored by the processes of natural law, which promises to maintain that relation, unless some world cataclysm develops of which we have no present warning.

Industry may be told that, on basis of a revived agriculture now assured, it may begin to frame its productive program afresh. At home and abroad, the skies are definitely clearing, and the record of progress in the healthy restoration of our industries will be, I believe, day by day, increasingly clear.

THE FINANCE com'te of the senate on Apr. 5 formally adopted a rate of 78c per cwt. as the tariff on imported wheat. The tentative rate fixed a week earlier was 30c per bu.

Feedstuffs

ORESTES, IND.—John Wise has entered the feed business here.

RUSSELLVILLE, ARK.—The Oglesby Feed Stores have opened branch stores here and at Conway.

HANNIBAL, WIS.—L. D. Crane has completed a building which he will use in operating a feed store.

WASHINGTON C. H., O.—The Cudahy Packing Co. plans to erect a plant for the manufacture of poultry feed.

DUBUQUE, IA.—Paul Schofield, for several years proprietor of the Monona Feed Mill, has opened a new feed store.

THE Sperry Flour Co., San Francisco, Cal., has registered "Sure Pork" as trademark No. 153,622 for use with stock food.

HUTCHINSON, KAN.—W. D. Kennedy, formerly of Arlington, has bought the feed business of the Rorham Feed Store.

CALEDONIA, N. Y.—The plant of the New York Alfalfa Mill has been destroyed by fire. The cause of the blaze is unknown.

ANDES, N. Y.—Harry D. Archer has purchased the interest of S. F. Penfield in the feed business of H. D. Archer & Co.

THE WORDS "Sure-Nuff" have been registered as trademark No. 151,992 for use with cow feed by William J. Lawther, Dallas, Tex.

THE TRADEMARK "Union Grains" has been registered under No. 126,201 for use with dairy rations by the Ubiko Milling Co., St. Bernard, O.

THE WORD "Climax" has been registered as trade mark No. 141,442 for use with mixed poultry feeds by the Wells-Osen Milling Co., De Pere, Wis.

OSWEGO, KAN.—C. L. Hamilton has completed a feed mill. He will do custom grinding and also wholesale the products manufactured by his plant.

BALLINGER, TEX.—The Economy Milling Co., organized by E. A. Jones and Ed Bailey, has built a plant for the manufacture and mixing of livestock and poultry feeds.

CRYSTAL SPRINGS, MISS.—A plan is under consideration to increase the capital stock of the Truck Growers Ass'n, which operates a canning plant here, and to install machinery for the manufacture of mixed feeds.

MINNEAPOLIS, MINN.—E. H. and A. L. Bisbee, who have been with the Midland Linseed Products Co., as vice-pres. and sec'y, respectively, have left that company. They plan to establish a crushing plant in the east.

MINNEAPOLIS, MINN.—Oscar C. Opsal, who for 22 years has been connected with H. Wehmann & Co. in the feed business, has entered a similar business for himself.

MILWAUKEE, WIS.—Kotvis Bros. Co. has been organized and incorporated with capital stock of \$65,000 to buy, sell and manufacture all kinds of feeds. David and Peter Kotvis, and C. M. Tronsen are incorporators.

RUSSELLVILLE, ARK.—A few days ago I talked with a railroad man who told me that it had been the practice of some men in the grain business here, for the last year or so,

to get a car of feed on track and then make the shipper reduce the price, claiming the feed was inferior in quality or offering some other reason. He tells me that several cars unloaded in the past year or two have been handled in this manner.—W. T. Oglesby, Oglesby Feed Stores Co., Fort Smith.

St. Louis, Mo.—The feed business of J. R. Lacy & Co. has been bought by the Schwartz Bros. Feed Co., who also purchased the elevator and hay warehouse of the Saeger Estate which J. R. Lacy & Co. operated.

ASHLAND, KY.—The plant of the Ohio Mill & Supply Co. has been purchased by Ed. Vanhouse and V. E. Adams. A company has been organized with capital stock of \$150,000

and the plant will be remodeled for the manufacture of feeds.

FREMONT, NEB.—The Alfalfa Corn Products Mfg. Co. has been organized by H. F. Fredrickson, formerly of Omaha, and a plant will be erected here for the manufacture of products from corn and alfalfa. Capacity of 20,000 tons annually is expected.

A REPORT issued by the Banque de France states that 1,500,000 hectares of the 2,000,000 hectares of land made waste by the war have again been placed in cultivation.

Corn Movement in March.

Receipts and shipments of corn at the various markets during March, compared with March, 1921, were as follows:

	Receipts		Shipments	
	1922	1921	1922	1921
Baltimore	8,964,900	5,139,507	8,643,441	3,862,948
Chicago	12,446,000	15,743,000	12,106,000	10,716,000
Cincinnati	418,800	451,200	231,600	238,800
Duluth	2,153,718	568,411	37,515	11,163
Ft. William	6,236	3,112	6,236	3,112
Galveston				55,923
Indianapolis	1,288,000	514,800	806,400	1,239,000
Kansas City	1,615,000	2,418,750	783,750	697,500
Los Angeles, cars	131	23		
Milwaukee	2,243,220	3,110,625	1,713,542	1,541,725
Minneapolis	1,974,800	1,273,190	1,315,770	1,143,000
New York	3,231,200		4,200,000	
Omaha	3,053,400	2,203,600	2,808,400	1,960,000
St. Joseph	882,000	816,000	690,000	499,500
St. Louis	2,210,000	3,318,900	2,402,955	2,470,530
San Francisco,				
tons	1,923	1,353		
Toledo	302,500	306,250	130,080	86,702
Wichita	74,400	120,000	62,000	85,000

Wheat Movement in March.

Receipts and shipments of wheat at the various markets during March, compared with March, 1921, were as follows:

	Receipts		Shipments	
	1922	1921	1922	1921
Baltimore	1,411,007	750,477	1,755,611	1,020,149
Chicago	1,229,000	2,218,000	1,284,000	1,484,000
Cincinnati	230,400	202,800	231,600	188,400
Duluth	2,622,391	897,631	247,085	462,051
Ft. William	8,992,706	4,366,792	1,620,259	2,271,353
Galveston			1,356,196	5,025,192
Indianapolis	96,200	187,200	39,000	72,800
Kansas City	3,987,900	5,783,400	4,769,550	5,636,250
Los Angeles, cars	211	151		
Milwaukee	79,880	288,900	144,625	165,600
Minneapolis	6,972,550	7,398,360	3,454,870	4,525,790
New York	4,447,600		5,089,000	
Omaha	1,178,800	1,162,800	1,251,600	1,450,800
St. Joseph	799,400	771,400	222,600	287,000
St. Louis	2,451,443	2,696,397	2,407,290	2,545,780
San Francisco,				
tons	6,007	4,862		
Toledo	218,400	203,000	323,280	49,878
Wichita	824,400	1,421,000	476,000	768,000

Rye Movement in March.

Receipts and shipments of rye at the various markets during March, compared with March, 1921, were as follows:

	Receipts		Shipments	
	1922	1921	1922	1921
Baltimore	376,721	960,105	953,047	955,730
Chicago	222,000	218,000	286,000	172,000
Cincinnati	8,400	13,200	13,200	20,400
Duluth	2,108,714	327,898		244,998
Ft. William	270,996	155,049		39,398
Galveston			16,000	138,014
Indianapolis	9,800	16,800	2,800	11,200
Kansas City	20,900	48,400	12,100	45,100
Los Angeles, cars		1		
Milwaukee	229,230	140,390	216,980	104,180
Minneapolis	366,220	403,610	277,890	379,200
New York	320,600		131,000	
Omaha	183,400	57,200	16,800	63,800
St. Joseph	1,500	1,500	1,500	
St. Louis	16,500	33,000	20,630	5,320
Toledo	34,800	22,800	4,250	29,175
Wichita	3,600		3,600	

Barley Movement in March.

Receipts and shipments of barley at the various markets during March, compared with March, 1921, were as follows:

	Receipts		Shipments	
	1922	1921	1922	1921
Baltimore	79,677	96,674	158,659	125,000
Chicago	766,000	828,000	285,000	399,000
Cincinnati	6,500	1,300		
Duluth	174,969	3,212	41,596	2,754
Ft. William	948,567	1,180,196	137,548	232,101
Kansas City	73,500	232,500	101,400	118,300
Los Angeles, cars	100	82		
Milwaukee	971,700	704,520	237,160	163,570
Minneapolis	1,061,440	1,160,610	1,122,560	875,130
New York	386,900		477,000	
Omaha	88,000	72,000	84,800	52,200
St. Joseph	10,500	57,750		3,500
St. Louis	76,800	22,400	19,510	17,770
San Francisco,				
tons	16,875	27,578		
Toledo	4,800	6,600		
Wichita	2,400		2,400	

Feed Movement in March.

Receipts and shipments of feedstuffs at the various markets during March, compared with March, 1921, were as follows:

	Receipts		Shipments	
	1922	1921	1922	1921
Baltimore, tons	1,791	1,057		
Cincinnati, tons	1,920	1,350		
Chicago, lbs.	31,565,000	31,691,000	133,290,000	67,537,000
Los Angeles, cars	128	133		
Milwaukee, tons	2,300	1,440	34,863	17,871
New York, tons	120		111	
San Francisco,				
tons bran	183	217		
St. Louis, sacks	276,450	95,930	846,380	130,155



Plant of the Midland Flour Milling Co., Kansas City, Mo., After the Dust Explosion March 15. The initial explosion apparently occurred on the third floor and followed the wind trunking to the top story.

Dust Explosion in Kansas City Mill.

An explosion of dust that started and put out its own fire occurred in the plant of the Midland Flour Milling Co., at Kansas City, Mo., on the morning of Mar. 15. In most dust explosions the wreck is so complete there is little to theorize upon as to the origin, but the explosion here was unique in leaving the damaged dust collecting equipment practically in position so that the travel and effect of the blast could be traced.

A piece of metal passing thru a roller mill grinding middlings started the explosion by igniting the dust in the roll housing. The resulting expansive gas pressure passed upward thru the wind trunking to the main dust collector, a steel box 50 ft. long and 4 by 4 ft. in section, which was blown to pieces and scattered about the room. The dust collectors under the box were badly smashed, some of those standing and part of the box above being shown in the engraving herewith.

Traveling upward from the point of origin on the third floor the explosion blew out several windows on the top floor, four stories above and spent its force thru a roof vent. The principal explosion was followed instantly by two minor explosions. Some of the machinery continued running for 8 minutes.

Evidence of fire was ample. Thruout the mill many reels had the bolting cloth burned

off. The bristles on a cloth cleaning brush were partly burned away. The outer case of one bolter was scorched and blistered. Purifier cloths were burned. All these fires were extinguished without human assistance. The theory of the officials of the company is that the subsequent explosion put out all the fires in the different parts of the plant.

The wind trunking leading from the lower floors to the top of the mill collapsed as from outside pressure or inside suction, while the piping at the very top of the plant showed the force had been exerted from within outward. One elbow of the fan on the top floor was blown out thru a window.

The damage, amounting to \$10,000, has been repaired. The loss was covered by explosion, fire and use and occupancy insurance. No life was lost.

The plant was of up-to-date construction, the machinery housings were of metal and it was kept clean. The fact that it was of the large window, daylight, type construction gave the explosive gases an opportunity to spend their expansive force thru the windows and saved the walls from being blown out, with consequent loss of life and property.

GERMANY'S 1921 wheat crop was 107,798,000 bus., exclusive of Upper Silesia. The rye crop was 267,254,000 bus.; and oats, 344,812,000 bus.

Fire in Quaker Oats Co. Plant at Cedar Rapids, Ia.

Sparks from a feed grinder on the 4th floor of warehouse No. 2 of the Quaker Oats Co., Cedar Rapids, Ia., are supposed to have started a fire at 1:10 p. m., Mar. 25, that resulted in considerable damage before it was extinguished.

Automatic sprinklers, which threw water on the blaze as the flames leaped from the 4th to the 5th and then to the 6th floors, held the fire in check until the fire dept. arrived. The flames were extinguished in about an hour, but not before they had gutted a shaft that runs from the 4th to the 6th floor.

The damage to machinery is not great, but the sprinklers and water from hose lines soaked feed stored on all 8 floors and much of this will be worthless.

The structure in which the fire occurred is of reinforced concrete with hollow tile walls, and the greater part of it is used for the storage of feed.

A magnetic separator would have extracted the metal and prevented the sparks which started the fire.

Discrimination Between Customers.

The first order by the Federal Trade Commission against a manufacturer for discriminating between customers in the price charged has just been entered in docket No. 606. This was followed by a similar second order in docket No. 729 against another manufacturer.

The order is directed against the practice by respondent of discriminating in net selling prices between purchasers of the same grade, quality and quantities of commodities upon the basis of a classification of its customers as "jobbers," "wholesalers," "retailers," or "consumers," or any similar classification which relates to the customers' business policy, business methods or to the customers' manner of doing business in any transaction in, or directly affecting, interstate commerce in the distribution of its products.

From time immemorial it has been trade practice to give discounts based on the classification of the customer, as well as special discounts to individuals favored for reasons known only to the manufacturer. The order will redound to the benefit of big consumers, chain stores and mail order houses, who will no doubt flock to the offices of the Commission by thousands to make their complaints against lower prices made to others.

Just watch the manufacturers submit to political dictation of business methods.

Some Milling Tests Reported.

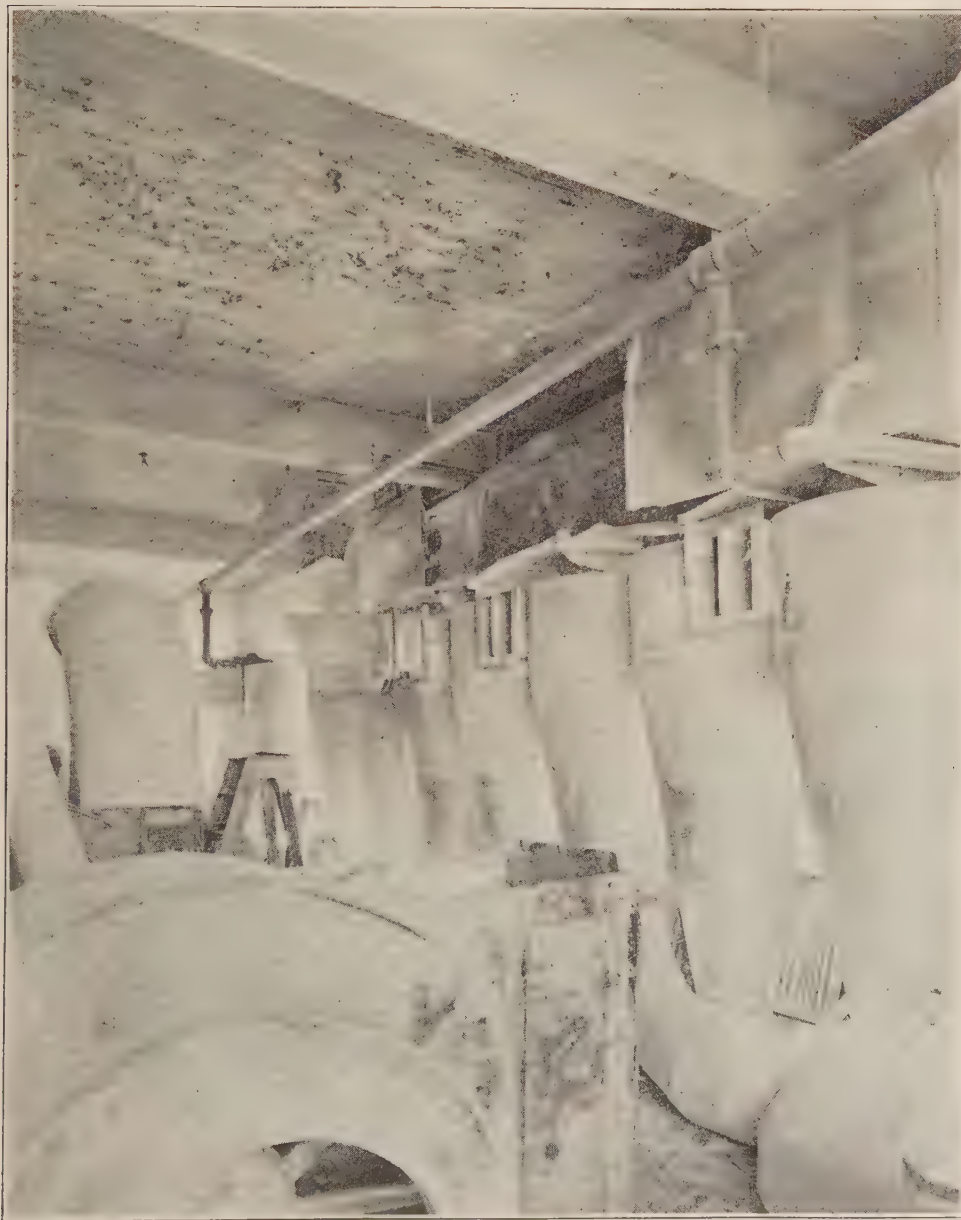
The results of milling tests made on 27 cars of wheat at the new testing mill of the state of Minnesota, were announced recently by H. N. Holmberg, state commissioner of agriculture. The tests were conducted by C. H. Bailey, chemist at the Minnesota University Farm.

The announcement stated that tests of 5 cars of No. 1 dark northern wheat show production from each bushel of wheat of flour and feeds worth \$1.687; while 6 cars of No. 2 dark northern yielded from each bushel a quantity of flour and feed worth \$1.657. On 11 cars of No. 3 wheat the results were at the rate of \$1.635 per bu., and on 5 cars of No. 4 dark northern \$1.611 per bu.

A member of the Minnesota Railroad and Warehouse Commission stated that the mills make too much of a difference between the price paid for No. 1 dark northern and the lower grade wheat. Good chance for him to teach the millers how to run their business. Wonderful wise politicians. Funny they do not engage in business.

What Is Your Size?

The man who thinks he is too big for his job—is generally too small for any other job. Stop admiring yourself, get acquainted with your work and find out what wonderful opportunities are there to master.



Dust Box and Collectors in Plant of the Midland Flour Milling Co., Kansas City, Mo., Wrecked by Dust Explosion.

The Exposure Hazard

Metal Siding and Roofing Materials.

When the owners of the early grain handling plants of wood construction covered them with wooden siding and roofed them with wood shingles they were following a practice that was general in a country where wood was the most plentiful of building materials. It soon became apparent, however, that wood shingles and wood siding are not suitable covering materials for grain handling plants, chiefly because such coverings do not give protection against the peculiar fire hazards to which these plants are invariably exposed. Instead of protecting against these hazards, the wood covering actually increases the fire hazards of such plants.

As some covering is necessary, and as permanency is a most important requirement, operators of grain handling plants turned to

ture to return the iron to its original state. "Dust thou art, and unto dust shalt thou return" may be said with equal truth of man and iron.

Corrosion is caused by electrolytic action. It is largely the result of failure of impurities in the iron to "agree," thus setting up electric currents that decompose the sheet. Brown spots appear on the surface of the sheet. Each spot is followed by a pinhole which becomes larger and larger and finally the usefulness of the entire sheet is destroyed.

This explains, in brief, the failure of much sheet iron or steel of a few years ago to give satisfactory service. It also shows why there are as many different varieties of sheet metals as of toadstools, some of them, from the buyer's point of view, being quite as deadly.

The problem of overcoming rust and corrosion was attacked by scientists, and now the manufacturers of sheet metal are able to turn out products that yield less readily to these enemies. Rust, however, will always be a factor as it can no more be prevented altogether than death can be prevented from overtaking man. The best we can do is to make the iron as good as possible, then protect it by means of non-rusting coatings to exclude the air. Susceptibility to corrosion has been overcome to a large extent by making sheet metal of greater purity and homogeneity so that the "disagreement" between the remaining impurities is reduced to the most practicable minimum.

Sheet iron and steel are available in numerous forms for the siding and roofing of grain handling plants. The first requisite is that the base metal be a commercially pure iron, and that the coating be of good quality and properly applied. Thereafter, the choice of shingles, flat sheets, corrugated sheets or other forms is largely a matter of personal preference.

Application: When the pitch is 3 ins. or more to the foot, corrugated roofing, V-crimped roofing or metal shingles may be used. When the pitch is less than 3 ins. to the foot these are not satisfactory, and roll and cap or pressed standing seam roofing should be used. The manufacturers make special cross corrugated sheets for use on grain elevators where there is probability of the structure settling.

The method of nailing cross corrugated sheets is shown in the engraving reproduced herewith.

For light gauges of corrugated sheets the sheathing should be close, but gauges heavier than No. 26 or No. 28 requires purlins only.

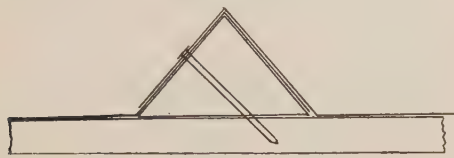
In applying corrugated roofing, the workman should begin laying from the end opposite that exposed to the general wind direction. This will prevent the wind from having an opportunity to drive under the laps. One corrugation of the first sheet should project over the gable end roof boards, and there should be at least 3 ins. projection at the eaves. The projecting corrugation over the gable should be hammered down and nailed closely, and a nail should be put thru every other corrugation at the eaves. Do not nail

except at sides and ends of sheets. The second sheet should be lapped 1½ corrugations over the first; and end laps should be not less than 3 ins. Lead washers should be used under the nails as they give a tight joint and prevent leakage, and it is a good plan to paint between laps as the roofing is applied.

In applying standing seam, V-crimp roofing or shingles it will be necessary to follow the instructions furnished by the manufacturer for the particular type of roofing used.

Flat sheets are quite suitable for elevator siding, but they must be well nailed to keep them from loosening in the wind.

Coating: Since bare iron or steel will not satisfactorily resist rust, it is necessary to provide some protective coating. The one that is most practicable is known as galvanizing,



Method of Nailing V-Crimp Metal Roofing.

sheet metals. Copper and zinc, both quite satisfactory from the standpoint of durability, were excluded because of their cost, and iron in some of its forms became the accepted standard of metal coverings.

When, where and how the first iron was found will probably remain a mystery for all time. We have abundant evidence that it was known from the beginning of recorded history, but under the primitive methods of converting iron ore into usable forms it was so costly that it could almost be ranked as a precious metal. From the samples of that ancient iron that have come down to us, and by comparing them with the iron of much more recent manufacture, we have learned that the quality of the old product was excellent and that it resisted the disintegrating action of time much better than some of the iron made only a few years ago. The study given to this problem by metallurgists resulted in their agreement that the old iron owes its durability to its purity and to its evenness of texture and homogeneity.

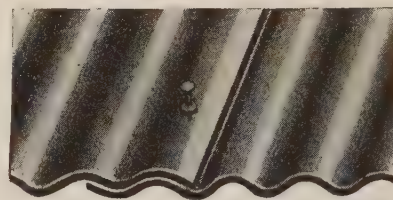
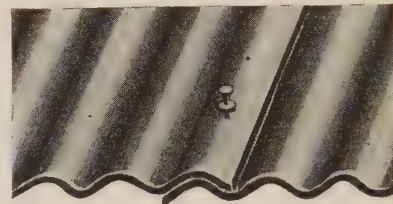
The two great enemies of iron are rust and corrosion. They are the result of separate and distinct influences, although both may occur simultaneously in a single piece of metal. Rust is caused by the action of oxygen on the iron, and it is essentially the effort of na-



Lead Washer and Manner of Applying it With Nail for Fastening Metal Siding and Roofing.



How to Nail Cross Corrugated Metal Siding.



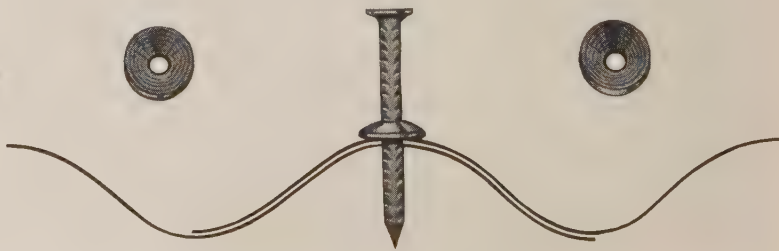
A—One Corrugation Side Lap, Which is Sufficient for Siding. B—One and One-half Corrugations Side Lap, Recommended for Roofing.

and it consists of a thin coat of zinc which is applied in a molten form to the sheet, the iron being dipped in a vat of melted zinc spelter.

So long as the galvanizing remains on the sheet it will not be affected by rust. It will give no added benefit to paint new galvanized sheets, but it may be advisable to apply a good metal paint after the roofing or siding has been in service 3 to 8 years. In painting, care should be exercised to work the paint well into cracks and around nails.

Lightning Protection: Buildings roofed and sided with sheet metal are effectually protected against fire from sparks or burning brands coming from the outside if the covering has no holes to admit the unwelcome visitors. Moreover, a grain elevator, so covered, with an approved connection between roof and sides at the eaves, and with the lower part of the iron grounded in an approved manner, is practically safe against lightning. At least, no elevator so protected has been damaged by lightning. This being an enemy that stands well up toward the top of the list of causes of fires in unprotected grain handling plants anything that tends to reduce the hazard is worthy of consideration.

The connection at the eaves should be made by forming the metal to fit under roof sheets, around the eaves, and over the siding sheets. This forming or bending can best be done



Use of Lead Washers and Method of Nailing Sheets When Corrugations Run Perpendicularly.

by workmen on the ground, and it is necessary then only to slip the bent sheets into place and nail them. Grounding should be done as for any other forms of lightning rods, all connections being made secure and soldered. There should be at least one good ground at each corner of the building.

Prolific Causes of Fire, but Produce Small Losses.

By H. E. Wilson, Gen'l. Agt., Michigan Millers Mut. Fire Ins. Co.

While I have no authentic figures for 1920 or 1921, I find that previous to that time the experience of the mill mutual companies shows that practically one-third of the number of our losses was caused from exposures, locomotive sparks or lightning. However, a good many of these losses are only small ones as our records show that less than sixteen per cent of the total amount of money paid out in losses was paid for losses attributed to these three causes.

This experience covers a period of ten years with an average annual loss from these three causes amounting to approximately \$245,000. This would indicate that there is a vast need for the elimination of fires from these causes, which can be brought about by cleaner premises, better repair to buildings, the elimination of bad exposures with the assistance of the State Fire Marshal if necessary and the installation of standard lightning rod protection.

However, there is one other point in connection with the locomotive spark hazard. The writer was one of a committee of three, who reviewed the 1921 losses of the mill mutual companies and in investigating the losses coming from railroad hazards, we discovered that in nearly every case the building was in poor repair, premises poorly kept or it had a shingle roof.

THE ANNUAL meeting of directors, delegates and members of the Millers National Federation will be held in the Blackstone Hotel, Chicago, Apr. 21.

CONSIGNMENTS of grain have been offered to the regular commission houses by the U. S. Grain Growers, Inc., shipments to be made with bills of lading attached. In the meantime, the U. S. Grain Growers has announced that the Sales Company will go into the business of handling grain in the largest markets within 90 days.

IF GRAIN elevator operators attempted to classify wheat according to the rules proposed by the political buccanniers they would need double the present number of bins for proper classification. What is more the cost of grading wheat would be greatly increased without benefiting anyone.

Results of Defective Construction of Elevators.

By V. E. Butler, Supervising Director Grain Dealers Nat. Fire Ins. Co.

Twenty years ago the common type of country elevator carried three bad defects in construction from the standpoint of the locomotive spark and lightning fire hazard. The shingle roof, wooden sidings and open foundations.

From the time of the organization of the Grain Dealers National Mutual Fire Insurance Co., down to the present time, a systematic campaign has been waged against that type of elevator construction and its fire statistics prove the results have been of benefit to its policyholders.

It is of deep interest and real value to know the results of almost twenty years of constant labor in fire prevention work when applied to any one factor that contributes to the fire loss of the country and especially so when such work is done in connection with any one class of property.

No statistics were kept for the first two years bearing on these hazards, but for the year 1904 and thereafter complete records have been kept. They tell the story better than it can be written.

Statistics of the Grain Dealers National Mutual Fire Insurance Co., pertaining to losses for a period of 15 years, 1904 to 1918 inclusive (in periods of 5 years each), show losses from causes being reported as due to locomotive sparks and lightning, as follows:

NUMBER OF LOSSES TO EVERY \$6,402,244.00 INSURANCE AT RISK.

DUE TO LOCOMOTIVE SPARKS.

First 5 years, 8 1/5 elevators.
Second 5 years, 3 4/10 elevators.
Third 5 years, 1 1/3 elevators.

DUE TO LIGHTNING.

First 5 years, 8 6/10 elevators.
Second 5 years, 8 7/10 elevators.
Third 5 years, 3 1/2 elevators.

AMOUNT LOSS PAID ON EACH \$6,402,244.00 INSURANCE.

DUE TO LOCOMOTIVE SPARKS.

First 5 years average\$12,998.65
Second 5 years average 7,050.23
Third 5 years average 2,924.85

DUE TO LIGHTNING.

First 5 years average\$ 2,762.83
Second 5 years average 5,269.60
Third 5 years average 1,819.37

In 1919 with 5,300 risks insured for \$53,462,682.00 the average elevator loss from locomotive sparks equaled 1/2 elevator for each \$6,402,244.00, at risk, with 19 small losses paid for lightning amounting to \$303.48 for the year.

The railroads of the country should provide in their leases that all property built by the public along their right of way should be built with non-combustible roofs and sides and with

closed foundations for the above statistics clearly indicate the great benefits to be derived from such construction.

The country elevators built within the past ten years have been largely of the modern type which is undoubtedly the reason for the decreased loss ratio from the two causes named, but there are still many elevators of the old type left that need a renewal of roofs and sides and the railroads should endeavor to have such renewals made to conform to the standards of safety from fire.

An effort was made by the Grain Dealers National Mutual Fire Insurance Co. to have the following clause incorporated in all railroad leases because of the benefits accruing to the railroads as well as to the property owners along their lines.

The destruction by fire of any industry is a loss to both the railroad and the owner in tonnage and financially.

Some of the roads have adopted the clause or that part of it suitable to location in its entirety or the principal involved and the Railway Fire Protection Ass'n has recommended to the real estate and contract departments that such clause be incorporated in railroad leases and agreements.

NEW CLAUSE IN GROUND LEASES.

The elevator and other buildings erected by lessee on the above described premises shall be equipped with non-combustible roof and sides, and whenever renewal shall be made of roof or sides on elevator or other buildings on above described premises, such renewals shall also be made with non-combustible materials, it being understood that all shingle roofs shall be renewed within ten years from date first put on. The lessee shall maintain and keep the buildings and surrounding premises in proper, clean, safe and sanitary condition and free and clear of any explosive, inflammable or combustible material which would increase or tend to increase the risk from fire; shall keep the premises surrounding buildings free of all litter and vegetable growth, other than lawn grass, which shall not be over three inches high; shall cover the ground space between the inner railroad rail and any grain loading building with cement, and where buildings are without solid foundations shall cover the openings between foundation walls with iron; and shall observe and comply with all the rules, regulations and orders of any duly constituted authority.

50% of Fires Due to Known Causes Charged to Poor Housekeeping.

By H. W. Donnan, Supt. Elevator Dept., Hartford Fire Ins. Co.

On our mill and elevator class fifty-six per cent of our losses were charged to unknown causes. Thirty per cent of the known causes were attributable to lightning. Our records show no metal clad, metal roof house property grounded damaged by lightning. The amount chargeable to lightning was double that of any other item.

Of the fifty-six per cent chargeable to unknown, we are reasonably certain that a large portion of this is due to railroad sparks on shingle roofs.

We have few partial losses due to exposures, locomotive sparks, or lightning. The plants are pretty generally totally destroyed.

In the list of known causes fully 50% are due to carelessness and poor housekeeping, and it is the writer's personal opinion that an even larger per cent of the unknown causes are chargeable to carelessness and poor housekeeping.

THE WEIGHT of fair average quality of wheat for the current season has been fixed at 60 lbs. per Imperial Bushel by the Melbourne Chamber of Commerce, Melbourne, Victoria, Australia. The standard is the same in South Australia. In New South Wales it is 61-lbs., and the West Australian standard has not been fixed.

A STRIKE of farmers threatens Argentina. The farmers have stated they will discontinue their operations unless rents are reduced, and the government is making every effort to settle the difficulty. Pres. Irogoyen recently promised the farmers he will do all he can to have pending rent laws passed by congress.



The Effect of Corrosion on Interior Quality of Metal Siding. The Roof of Ingot Iron Is Still in Good Condition.

The Exposure Hazard of Grain Elevators.

By Eugene Arms, Mgr. Mutual Fire Prevention Buro.

"Exposure" as the term is here applied is understood to mean fire damage to one property by reason of exposure to fire originating in an adjacent property.

The old adage that "a chain is no stronger than the weakest link" could well be changed to safety from fire. A building is no safer than the adjacent buildings. All of the disastrous conflagrations on record have been caused by this exposure hazard, engendered by congested areas of combustible buildings.

It is seldom, however, that a grain elevator is subjected to a general conflagration, being located usually in the smaller towns and not in the most congested areas of the town. The usual contributing factors are the construction of the elevator itself, and the construction and occupancy of the adjacent property and its proximity to the elevator.

The selection of the site for a new elevator is of first importance. While it is more important that the site be chosen on the side of the railroad from which the prevailing winds blow, it must also be remembered that adjacent buildings "up-wind" are much more dangerous than otherwise. Sufficient ground should be purchased or leased to enable the elevator owner to protect his property against the building of a "fire trap" or in fact any building except strictly "fire resistive" within a safe distance. No type of building, not even what is known as strictly fire resistive construction is immune from damage by fire within itself, but a fire resistive building is not considered to create an exposure hazard. All other types of buildings must be considered when estimating the possibility of an exposure fire.

Upon the site obtained there may already be buildings having some potential value. Possibly a row of coal sheds not in good condition, or a stable. If the coal sheds are to be retained, they should be put in first class condition. Many a fine looking elevator has been ruined in looks, and eventually destroyed by fire because of the dilapidated condition of a comparatively small addition or adjacent property. The stable should be at a safe distance from the elevator. So much depends on the construction of both the exposed and the exposing buildings that no definite rules can be laid down as to what constitutes a safe distance. The volume of the exposing building must also be considered, but generally speaking a stable should not be closer than fifty feet. This applies to a stable under the same ownership as the elevator, and not to the property of others. The typical livery stable is not safe at one hundred feet.

Eleven Classes: The mill and elevator mutual insurance companies divide combustible buildings into eleven different classes when making the charge in the insurance rate for ex-

posures. The same eleven classes are used both as the exposed and the exposing buildings. In arriving at the amount of exposure charge to enter into the insurance rate the construction of the buildings, the height, the clear space between buildings, the volume of exposing buildings, and the fire department are all taken into consideration. The table is too complicated to permit of any attempt to illustrate its application here, but it is enough to say that the exposure charge is a big factor in the insurance rate on those plants which are not isolated.

The classes of buildings are arranged below in the order in which they affect the insurance rate, the class giving the least exposure charge being first.

Entire Brick Walls, Parapeted metal roof.

Entire brick walls, not parapeted, or brick walls with openings protected, metal roof.

Entire brick walls, or brick walls with openings protected, shingle roof.

Brick walls, unprotected openings, metal roof.

Iron clad or brick veneered, no exposed openings or skeleton iron clad, metal roof.

Brick walls, openings not protected, shingle roof.

Iron clad or brick veneered, exposed openings, metal roof.

Iron clad or brick veneered, no exposed openings, or skeleton iron clad, shingle roof.

Frame metal roof.

Iron clad or brick veneered, exposed openings, shingle roof.

Frame shingle roof.

It will be seen that frame, shingle roof buildings, either as the building exposed or the exposing building are at the bottom of the list, while the iron clad metal roof building with no exposed openings comes fifth in the list. The charge is much greater for the one type of risk than for the other. It is impossible to say, because of varying conditions, just how much greater, but usually the difference is sufficient to warrant the expense of the iron cladding.

The occupancy of the exposing building is also worked into the rate through the exposure charge. Generally speaking, the insurance rating on the exposing property is a fair guide to the fire hazard. Hay storages, livery stables and frame garages, wood working plants and saw mills are typical of the higher rated properties that give high exposure charge to adjacent buildings.

The associated mill and elevator mutual fire insurance companies have paid \$800,000.00 for fires caused by exposure during the twelve year period just ended. Fire insurance rates are so made that each cause of fire will, as near as it is possible, pay for the fires originating from that cause. Therefore those policy holders whose plants are exposed to other buildings did, or should have, contributed this \$800,000.00 to pay the loss.

All buildings which are the property of the elevator owner, and are not valuable should

be removed and those which are still too valuable to tear down should be repaired and the fire hazards reduced therein until they are reasonably safe. By this means the fire losses will be greatly reduced, and the insurance cost, both directly and indirectly, reduced.

The photograph which is reproduced herewith shows an outstanding example of the importance of the exposure hazard. It pictures three elevators at Turtle Lake, N. D., while they were burning on July 26, 1921. The elevator at the right, almost completely destroyed when the photograph was taken, was struck by lightning. The fire then communicated to the other two plants in rapid succession. A fourth elevator was fired, also, but heroic efforts on the part of the fire fighters saved it.

The Turtle Lake fire was started by lightning, one of the most prolific causes of elevator fires and carried from elevator to elevator because they were so close together.

A PETITION for lease of land in Buenos Aires for a site for a grain elevator has been denied by the Argentine Ministry of Finance. It was ruled that the trade does not now need another industry of this character.

Railroads Trying to Reduce Fires from Locomotive Sparks.

By W. F. Hickey, Supt. of Insurance, N. Y., N. H. & H. R. R.

So far as work being done by the New York, New Haven and Hartford railroad in the way of fire prevention is concerned, our line and presumably most railroads during the months of the year when spark fires are expected to be prevalent on account of dry vegetation, make every effort to burn off or clear off the right of way, and go so far as getting permission from abutting property owners to clean the property for a distance of as much as 100 ft. from the right of way. While our railroad also pays particular attention to the maintenance of front ends and ash pans at all times, it makes a special drive on this feature during the time of the year when dried vegetation accumulates, and we also follow up with our train crews so that there will be no possibility of the firemen throwing hot coals out of the locomotives or permitting the engine to run with the ash pan slides open.

I think that probably 90% of the fires attributed to sparks from locomotives are chargeable to other causes, and the most prolific source of trouble is the condition of abutting property and the right of way, and that the most important feature is clearing such property from grass, underbrush, etc., not, however, disturbing trees that have attained any growth.

The general subject is of such importance with us that it has been engaging executives' attention for the last several months, and this week I attended a meeting in Boston at which were present our Vice-President, General Manager, General Mechanical Superintendent, Engineer Maintenance of Way, Mechanical Superintendent, Division Superintendents, our Fire Claim Agent, and the Commissioner of Conservation of the State of Massachusetts with his Chief Fire Warden, at which meeting our plans were gone over for this year, and I might say they are of a more comprehensive nature, and the work we are planning along the lines of prevention is of much greater volume than ever before.

I believe that if individuals and commercial concerns generally would give as much time and effort to the subject of prevention as the railroads are giving that much can be accomplished.

WHITE BREAD consumption in Germany is greater now than ever before, in spite of the unfavorable exchange conditions and the consequent high price of flour. After eating war bread and substitutes for 7 years the Germans now eat their fill of white bread no matter what exchange values may be.



Three Elevators Burning Simultaneously at Turtle Lake, N. D. First Struck by Lightning, Fire Communicated to Others Because of Their Exposed Positions.

The Locomotive Spark Hazard

By Eugene Arms, Manager Mutual Fire Prevention Bureau

During the twelve-year period (1910 to 1921 inclusive) the ten associated mill and elevator mutual fire insurance companies paid in fire losses \$1,290,918.32 for fires caused by locomotive sparks. Two hundred and fifty-four losses from this cause were reported. Shingle roofs, wooden siding in bad repair, open foundations with rubbish underneath, dried grass and rubbish on premises, open and unscreened windows and birds' nests in eaves were the contributing factors.

The shingle roof has been the worst offender. Aside from being a menace to the property, it is a distinct liability for its owner. From a purely business standpoint, the shingle roof is losing its owner money. The insurance cost on a plant having good metal or composition roof is enough less than on the shingle roof plant to pay the entire first cost, maintenance and replacement cost of the safe roof.

To illustrate we will assume an elevator with an average value of buildings, machinery and grain of \$20,000.00. The insurance cost per year at the present rate of assessment of the mill mutual companies is \$33.00 less, by reason of a non-combustible roof. By multiplying the annual saving by the average life of a good roof, it will be seen that the entire cost of the roof is saved by the lower insurance cost. Even if this were not a fact, no elevator owner can afford to jeopardize his business by inviting fire with a shingle roof.

Wooden siding is not suitable as a covering for a grain elevator. The higher insurance cost and short life of the siding are against it. Iron cladding has proved to be the one really satisfactory covering. The eaves, cornices, window sills and casings should be covered to afford full protection from locomotive sparks and to prevent the birds from building nests in the eaves of the elevator.

Foundation: From the fire prevention standpoint, the only really satisfactory foundation, is one which extends entirely around the outside of the building. The crosswall or pier foundation both have their disadvantages. Windows or vents, properly screened, are necessary in the solid foundation for ventilation. The crosswall or pier foundations have the disadvantage of leaving an open space underneath the building for the accumulation of rubbish and as sleeping quarters for tramps or a playground for boys. These fire hazards can be overcome to a certain extent by extending the side walls and iron cladding to the ground or by a heavily built tight fitting screen; but if the screens are used, they should be so constructed that it is not possible for them to be removed and replaced. A solid wall extending all the way around the outside of the building is the only satisfactory foundation.

Accumulation of rubbish, dried grass and vegetation around and underneath elevators cause many disastrous fires. A cinder or gravel surface will discourage vegetation and make it very easy for the ground to be kept in a cleanly and safe condition. Car door lumber should be piled well away from the elevator.

Screened Windows: It is recommended that all windows be screened whether they are to be left open or not. The screen is not expensive and it protects the window from being broken. Three-sixteenths inch mesh heavily galvanized wire screen is considered best. This screen is strong enough to stop the stones thrown by boys. The mesh is small enough to prevent locomotive sparks from passing through and yet not fine enough to clog with dust and destroy the ventilation.

The Railway Fire Protection Ass'n has been doing and continues to do excellent work in the prevention of locomotive spark fires. The locomotive ash pans and the stack screens are

being inspected as never before, especially on the main line runs. Their campaign of education of their engineers will eventually bring results, but in the meantime the elevator property must be prepared for a shower of live coals.

Asbestos Siding and Roofing Materials.

The substance which we know as asbestos possesses unique properties that are without parallel among other minerals. Formed perhaps slowly while the earth was undergoing untold ages of flame millions of years ago, in its native or original state, it is heavy and dense as marble, yet literally a nugget of silky fibre. Each of the fibres is so light that it floats on water, yet so rugged that the eons of the earth's cooling, hardening and cracking did not break its slender silk like thread.

Asbestos was known to the ancients, but by them it was regarded as a curiosity, a mystic mineral, and it has only been in comparatively recent years that it has come to occupy its present place as a recognized necessity and an especially helpful servant of mankind. Now we use its fibres in the manufacture of a multitude of articles and materials that contribute materially to our safety and comfort.

The characteristics which make asbestos suitable for use as a base in the manufacture of siding and roofing materials include its fire resistant qualities, the ease with which it may be fabricated, and its unchangeability under the action of oxygen and acids. It is not correct to say that any substance is fireproof, because if the temperature be raised high enough all substances can be consumed; but asbestos is unaffected by temperatures up to 1,500 deg. F., and this makes it immune to any heat to which it may be subjected in ordinary service. The many forms in which we see asbestos in every day use testify to its workability; and some peculiar quality given to it in the process of its formation makes it practically unalterable in gaseous atmospheres, while its resistance to the action of oxygen makes rust impossible.

These qualities combine to make asbestos a suitable material for the roofing and siding of grain handling plants, but, of course, asbestos in its native state cannot be so utilized. The necessary processing is done to combine asbestos with other materials to make sheets and rolled strips, shingles and boards. Of these, the sheets, strips and shingles are frequently used for siding and roofing, the boards being excluded only because of their greater cost.

In making sheets or strips, several layers or plies of asbestos felt are cemented together. The binder is usually a natural asphalt, properly processed and refined. The asbestos felt layers are themselves saturated with a waterproofing compound, then the several layers are pressed together with layers of asphalt between. In some cases asphalt is applied only on one side of the top ply, thus giving the finished sheet one side that is white, or nearly white, for the advantage of improved appearance.

Another form of asbestos sheets is made up of plies of asbestos felt with a sheet of metal midway between the plies, the asphaltizing process being the same as that already described. The metal layer gives the sheet rigidity, and it may be corrugated and used as siding and roofing on buildings having studding and purlins only and not sheathed.

Asbestos shingles are made by mixing the proper portions of Portland cement and asbestos fibre, the wet mixture being pressed into blocks or shingles of the required shape and size and cured to permit the setting of the cement. The resultant shingles, containing nothing combustible at even very high tem-

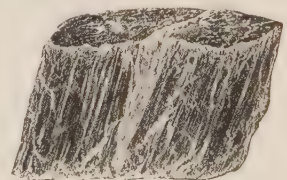
peratures, are quite suitable for use on grain elevators. They give the owner positive assurance that a locomotive spark or burning brand will never fire his "shingle" roof.

The application of asbestos siding and roofing, whether of the sheet or shingle form, is quite simple. To guard against the possibility of error, the various manufacturers place printed instructions in each roll, crate or other container, and these instructions should be closely followed.

Asbestos siding may be applied horizontally (parallel with the cornice or eaves), or perpendicularly (at right angles with the eaves). Vertical seams should be lapped 3 inches and horizontal seams 2 inches. A chalk line should be snapped across the building so that the sheets may be applied evenly and in proper alignment. Nailing should be done with the special large headed nails or other devices recommended by the manufacturer. The nails should never be more than 2 inches apart and $\frac{3}{4}$ inch from the edge of the sheet. Door and window openings should be faced with a 10-inch strip of the material before the frames or sashes are erected so that the siding proper may be slipped under the facing strips. Joints should be made to break, and in some cases it is thought to be desirable to apply a coat of lap cement as with roofing. Office buildings may be made quite attractive by applying the siding perpendicularly, covering the seams with a wooden strip 3 to 6 inches wide. This strip may be painted or stained any desired color.

The application of sheet or roll roofing is similar to that of siding, except that horizontal joints must be treated with a lap cement, and they should be lapped 2 inches or more. Vertical joints should be butted and laid over a joint strip, with lap cement. For both siding and roofing, sheathing boards should be dry, well seasoned and of uniform thickness, well nailed, and laid closely—tongue and groove sheathing being preferred. Loose knots and other flaws should be removed and all holes properly filled or covered. Nails, chips and other rubbish should be cleared away before the work is started.

Shingles must be applied according to the instructions of the manufacturers, and these instructions will depend upon the design of the shingles themselves. In general, asbestos shingles should be nailed with two galvanized or copper nails, placed thru the holes that were punched for them when the shingles were manufactured. These nails must be covered by the succeeding course of shingles. Most types of shingles provide for an additional holding nail in the lower portion of the unit, but this nail, made of copper, instead of being driven in the usual manner, is inserted into notches provided for it, and with the head locked beneath the lower shingle. The point then projects thru the upper shingle and when



A Block of Asbestos Ore.

this projecting end is bent down it holds the lower part of the shingle firmly.

Asbestos roofing and siding requires no coating or painting; it offers excellent protection against fire; it is water tight when properly applied; and one of the major claims made for it is that it is the cheapest per year of all covering materials.

SPAIN is now levying the following import duties on grain and flour: Wheat, 10 pesetas per 100 kilos; rye, 6 pesetas; barley, 6 pesetas; corn, 2 pesetas; wheat flour, 17 pesetas.

The Lightning Hazard

By Eugene Arms, Manager Mutual Fire Prevention Bureau

Scientists are not in agreement on many of the technical points, and for many of the peculiar manifestations of lightning no satisfactory explanations have been found. Steinmetz recently succeeded in reproducing with accuracy an actual stroke of lightning in his laboratory, and we may expect that the "Wizard" will clear up many of the mysteries. Several factors, however, have been determined with sufficient accuracy so that apparatus has been constructed which gives efficient protection against damage by lightning except in extreme cases.

Lightning is caused by the difference in potential between the cloud and the earth becoming sufficiently great to break down the resistance and form a path to earth, the cloud being positively and the earth negatively charged. One plausible theory of the existence of the difference in potential is that drops of water upon being broken up into smaller drops retain within themselves a positive charge of electricity, and give off into the air a negative charge which is carried off with the air currents.

A single drop of water may be broken and its particles reformed into larger drops many times before finally reaching the earth. It is assumed that this process induces within the cloud a very great positive static charge. The voltage difference between the earth and the cloud becomes very great, often reaching millions of volts before a disruptive spark, or lightning stroke, relieves the stress. The discharge is generally agreed to be oscillatory with frequencies in the hundreds of thousands of cycles per second. It is the extremely rapid rate of transformation in the stroke that makes lightning so destructive.

The electrical discharge, or lightning stroke, will always follow the path of least resistance, and, all other things being equal, the path of least resistance is the shortest distance between the cloud and an electrical conductor to earth. However, a lightning discharge leaves in its path to earth a condition of the atmosphere in which the resistance is considerably reduced. This may possibly explain why lightning does not always strike at the highest point. The path of a previous stroke may have been carried by the air currents in such a manner that a lesser resistance will exist between the positively charged cloud and a low building than between the cloud and an adjacent high tree.

It seems logical to suppose, and the impression is general, that lightning rods draw lightning to themselves, and that a rodged building is more apt to be struck by lightning than an unrodged building. This is not the case. Lightning rods operate to prevent lightning discharge between the cloud and the building. The positive charge on the cloud produces by induction a negative charge on the surface of the earth in the neighborhood of the cloud so that the building and surrounding ground are strongly electrified. The negative charge upon the building is discharged by the sharp point of the rod, thus relieving the overcharge in the air in the neighborhood of the building. As this action goes forward the potential difference between the cloud and the building grows steadily less and the danger of a disruptive discharge or lightning stroke is diminished. However, in some instances, the difference in potential between the cloud and the earth is so quickly developed that the lightning rod affords little or no protection against a stroke, and the result is that the protected building is struck the same as the unprotected building would have been with the difference that the lightning rods, if properly installed, will carry to ground without injury to the building any except those discharges which

are of the highest voltages, and the greatest frequency of cycles.

Some of the state insurance departments, and many farm mutual insurance companies, have compiled figures on the efficiency of lightning rod protection to farm buildings. The combined figures from all such statistics would indicate that lightning protection is between 98% and 99% efficient on farm buildings. In other words, on equal numbers of "protected" and "unprotected" buildings the lightning losses on the one class are only between 1% and 2% of the number on the other class.

The associated mill and elevator mutual fire insurance companies have paid \$1,150,769.14 in lightning losses on flour mills and grain elevators during the past twelve years (1910 to 1921 inclusive). The records show that no lightning loss has ever been reported on a plant having standard lightning protection, either a standard lightning rod equipment, or a fully iron covered house, properly grounded.

The Installation Specifications for Lightning Protection of Grain Elevators, Warehouses and Flour Mills established by the Mutual Fire Prevention Bureau for the associated mill and elevator mutual insurance companies will be found elsewhere in this number, and, if followed closely, they are a practical guarantee that lightning will not damage the property or cause loss of life in the building protected.

A JOINT RESOLUTION and bill, recently introduced in the senate by Senator Edge, of New Jersey, would authorize the appointment of a joint com'te of the senate and house to recommend legislation defining the rights and limitations of trade organizations. In speaking about the resolution, Senator Edge pointed out that congress recently passed a law specifically providing for co-operative marketing by agricultural ass'ns, and he said the plan he proposes is to apply the same idea to business at large, so that business men may always know just what is legal and what is not.

Specifications for Lightning Protection of Grain Elevators.

Installation specifications for lightning protection of grain elevators, warehouses and flour mills have been issued by the Mutual Fire Prevention Bureau which should help every elevator owner to the protection of his property. The specifications follow:

In most cases the warehouses and grain elevators are isolated buildings and in the case of the country elevator, it is the highest building in the vicinity. For this reason it is important that lightning protection should be provided.

The following specifications outline the best known practice and offer a practical and economical solution of the problem.

1. Grounding:

As the foundation of a building is the most important part of the structure, so the grounding of a lightning rod system is the most important part of the system. It has been said by some scientists that a poor ground creates a hazard when a lightning rod is connected to it. While this is not to be taken without salt, yet it goes to show that this feature of the installation cannot be taken too seriously.

Furthermore, the grounding must be known to be properly done at the time of installation, for it can never be inspected afterwards, without digging up the grounds.

There are three recognized methods of grounding covered under A, B, and C as follows, and the one most suitable must be chosen when the nature of the soil is known.

Method A—Attaching the Ground Wire to a Water Pipe.

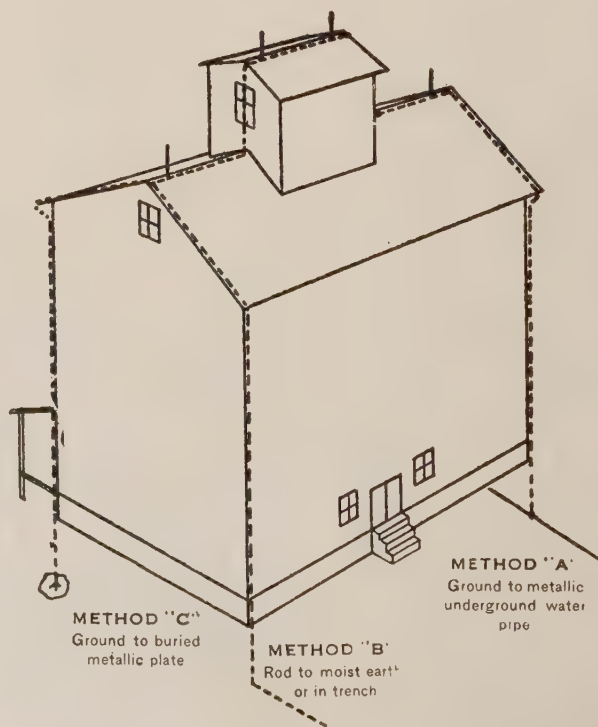
This method is to be preferred in all cases. The connection to the water pipe must be made at a point outside the building.

Connection to piping to be made preferably by soldering the conductor into a brass plug and forcibly screwing the plug into the pipe fitting, or, when the pipes are cast-iron, into a hole tapped into the pipe itself, or by sweating the conductor into a lug attached to an approved clamp and firmly bolting the clamp to the pipe after the rust and scales have been removed.

The idea is to get as good and permanent connection to the underground piping as possible, and one that will best withstand the effects of corrosion. It is desirable to connect to two or more lengths of pipe in order to guard against crippling the protection by injury to or deterioration of a single connection.

Method B—Extending the Rod Into the Ground to Moist Earth.

This method may be used only where the earth is permanently moist up to within a few feet of the top of the ground and the rod should extend at least 10 feet into the ground. If the copper rod would be subject to corrosion due to chemicals in the soil or more area is desired, a pipe driven into the ground should be used. Where no corrosion will take place, it is sometimes desirable to dig a trench, as for instance,



Proper Method of Installing Lightning Rods on Grain Elevator.

where there is a hard pan or rock near the top of the ground, at least 12 feet long and as deep as possible and lay the rod in the bottom. This method will give good results in clay soil.

Method C—Ground Plates:

Connection to ground plates to be made by riveting and soldering, and the connection to be thoroughly protected against corrosion by painting. The ground plates to be of copper and not less than No. 16 Stubb gauge about 3 feet square and buried below the permanent moisture level with about two feet of crushed coke or charcoal above and below.

A ground plate of good size, properly buried, is undoubtedly the most satisfactory alternative for the underground pipe system, but is not advised where the pipe system is available.

A heavy iron casting, such as a large pulley, having a superficial area of at least 12 square feet could be used in place of the plate. The conductor should be connected to the casting by riveting and soldering and the casting buried the same as the ground plate above described.

This method is preferable to method B in sandy soil.

2. Number of Ground Connections:

There shall be not less than four ground connections on any building, one at each corner of a square or oblong building.

An L shaped building will require at least five and a T shaped building at least six ground connections.

3. Conductors:

(All conductors are commonly spoken of as rods.)

The conductors or rods shall be of copper, weighing not less than 4 ounces per foot. The rods shall be loosely woven or stranded in such a manner that there will be considerable "give and take" so that they will not be misplaced by the settling of the building when loaded.

The rods should be carried from the peak to the eaves of the building, then down the sides to the groundings and should never be carried over the cornice at any point except at eaves.

The metal eave spouts and down spouts as well as metal ridge should be fastened to the rods by a soldered connection.

The upper horizontal conductor should be carried along the most exposed part of the roof as that is where the lightning is most liable to strike.

4. Air Terminals:

The air terminals are the pointed elevations extending from the conductor into the air. They should in general be located not more than 25 feet apart and in addition, upon all high or prominent parts of the roof such as cupolas, chimneys, Texas of mill or elevator, ventilators, etc. The main points to be observed in choosing the air terminals are substantial construction with features provided for making good, permanent, connection to the rod and solid fastening to the roof.

5. Metal in the Building:

Metal apparatus such as piping (other than gas piping), metal water tanks in the attic, etc., should be connected to the conductor. The connection to the conductor should be made as near the roof as possible, and the lower end grounded if the run is vertical.

6. General:

(a)—Rods shall not be insulated from the building.

(b)—As few joints as possible shall be used and all joints shall be made electrically and mechanically secure and protected from corrosion.

(c)—The rods shall run in as near a direct line as possible, avoiding sharp bends and inclining downward. They shall never run through iron pipes.

Metal Clad Buildings

The ideal lightning rod system would be one in the form of a rat trap construction set over a building, the wires close together and grounded. Buildings completely iron clad sides, eaves, cornice and roof give nearly the same condition when properly grounded.

1. Grounds:

Same as for rod systems see Methods A, B, and C.

2. Conductors:

On two of the corners, rods shall extend up the corners and over the eaves, the end being fanned out, and soldered to the metal roofing. On the remaining corners, the metal cladding must be grounded by approved rods to approved grounds.

3. Air Terminals:

At least two air terminals should be installed on the highest portion of the building, and connected to the metal roof by a soldered connection.

This form of protection is considered standard, and the 10 cent credit on the mutual basis rate is allowed.

An Improved Lightning Rod Anchor.

The best lightning rod system is worthless unless it is installed in a manner to give good contact with permanently moist earth; and, likewise, a ground that is perfect at the time of the installation will be rendered quite ineffective if it is altered so that there is no longer a good ground contact.

A lightning rod is subjected to many objectionable influences after it is put in place. Nobody examines it daily to see that it remains in good condition. It does not bring itself to the attention of the owner or custodian of the plant, and if it was not made safe against accident in the beginning there is considerable likelihood that it may not be ready to function when it is needed.

One of the precautions that must be taken is to fasten the cable in the earth so that it cannot be pulled out. The Goshen Lightning Rod Co. has recently perfected and applied for patent on the device shown in the engravings reproduced herewith for this purpose.

After the cable is fastened to the anchor, it is inserted in a hole drilled in the earth and the soil is packed above it much as a fence post is set in place. So long as the cable is not interfered with the anchor remains in this position, but the slightest pull will cause the anchor to turn, or attempt to turn, thus effectually resisting all efforts to draw the cable out. The anchor will withstand as much force as the cable or the connection, and it gives the additional advantage of presenting still more conducting surface to the moist earth.

Three Causes of Fires.

By G. A. McKinney, Sec'y Millers Mutual Fire Ins. Ass'n of Illinois.

If a flour bin in the home kitchen were leaking, losing flour all the time, the owner would not long delay about making the needed repairs. Why should not the same rule hold good when preventable fire hazards are considered?

Lightning causes many elevator and mill fires, and since property properly rodged is almost never struck by lightning, this cause of fire can be removed. Yet, a flour mill was struck by lightning in August, 1921, and totally destroyed. The insurance was \$182,000; the loss total and so paid.

A Kansas elevator, on railroad right of way, was covered with a wood shingle roof. In January, 1922, this shingle roof conspired with a locomotive spark and destroyed the plant. The loss was total, \$5,825.50. The lease relieved the railroad from all liability for loss caused by locomotive sparks. The shingle roof and this form of railroad lease must go. They are both a menace to good property.

Still another elevator was badly exposed by an abandoned elevator 45 feet away. The town chemical engine failed to work when needed, and the city hose was in bad order. The plant was lost. The loss was \$55,050.29, on which the insurance companies had \$49,100 and they paid in full.

There we have three causes of fire: lightning, locomotive sparks and exposure. Each is really preventable. These hazards cost the people hundreds of thousands of dollars each year, for it is the policyholders who pay. The insurance companies merely use the insurers' premiums to pay the one who loses.

Is your property so situated that any one or all three of these hazards affect it seriously? If so, why not remedy the defect?

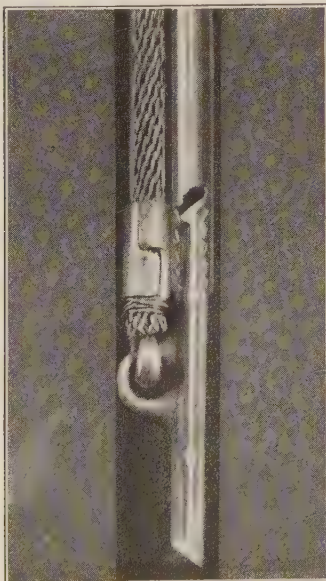
Ontario Will Encourage and Regulate Installation of Lightning Rods.

The fire marshal of Ontario has issued the new lightning rod act, together with rules and regulations for its enforcement which every grain elevator owner will find unusually interesting. He recommends the protection of country homes and barns, isolated buildings, and buildings wherever located, having elevated features.

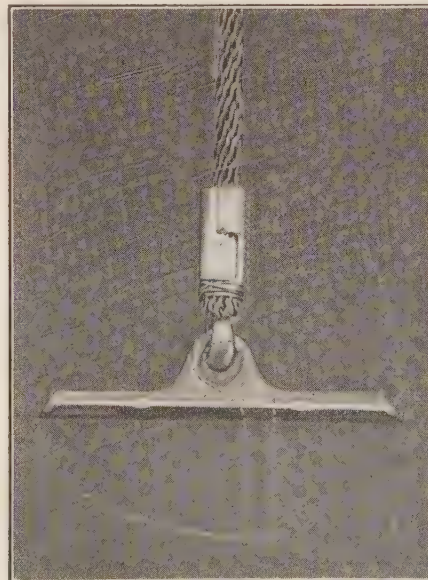
Prospective purchasers are urged to have the planning for protection of their buildings done by men experienced in lightning rod installation since "almost every building presents a problem which is peculiar to itself—like individuals no two are exactly the same. . . . Judgment must be used, based on available knowledge concerning high-frequency electrical phenomena, as to the distribution about a building of conductors and aerial terminals in such a way as to secure a maximum of protection. Although a system of lightning rods appears to be a very simple affair, the element it is intended to control is not governed by simple laws; that is, laws such as might be readily understood by an artisan not specially trained in this field. Work should therefore be entrusted to an expert who has made a study of the subject."

It will be the effort of the fire marshal to supervise the installation of lightning rods in Ontario so that rods which may be erected, if given proper maintenance attention, will hold efficiency as long as the average building lasts, which may be forty or fifty years.

For this reason and in order to insure first-class protection, the department will insist upon first-class mechanical construction and the use of sufficiently heavy metal conductors. Old installations as well as new installations are to be inspected and in either case where defects are found, the manufacturer who installed the system will receive a copy of the inspector's report with a recommendation as to what should be done to correct defects found.



Cable and Anchor Inserted Into Hole in Earth.



Result of Attempt to Pull Cable Out.

Radiographs

LYONS, KAN.—The Central Kansas Milling Co. has installed radio receiving equipment.

COON RAPIDS, IA.—Both of the local elevators expect to install radio receiving equipment soon.

LUCAS, KAN.—The Weber Grain Co., for which W. E. Ekey is manager, have installed radio equipment.

CHENEY, KAN.—The Bowersock Mills & Power Co. will install radio receiving equipment in its elevator here.

THE American Telephone & Telegraph Co. is building stations in the United States for commercial radio telephony.

A CONCERT given by the Omaha Grain Exchange recently was heard by radiophone as far away as Oklahoma City.

METAMORA, O.—The Rice Grain Co. is installing radio equipment for handling market reports. The station call will be SLR.

THE St. Louis Grain Club recently recommended the establishment of radio broadcasting facilities by the Merchants Exchange.

COON RAPIDS, IA.—We have installed radio receiving equipment for use in obtaining market quotations.—Coon Rapids Grain Co.

IN THE private office of General Squier, chief of the army signal corps, on Mar. 24, a few persons listened to music, speeches and recitations transmitted by the ordinary electric light circuit.

BEAVER, IA.—The Beaver Elevator Co. has installed a receiving set, and it will be so connected that programs may be rendered in the high school auditorium for the benefit of large audiences.

A RADIO SHOW will be held in the Coliseum, Chicago, Oct. 14 to 22. It will be an exhibit of everything connected with wireless, and a get together show for buyer and seller, novice and expert.

APPLICATION for a license to broadcast market reports by radio has been made by the St. Louis University. When official permission is received it is the intention to send out St. Louis and Chicago grain and livestock market reports.

ATLANTIC, IA.—Van Wie & Moorehead will install radio equipment in their office in the Christensen Bldg., formerly occupied by C. H. Thayer & Co. Daily market reports will be received and posted.

ALFRED G. RINEHART, a 19-year-old boy of Elizabeth, N. J., has built a radio set into an ordinary sized finger ring. It measures but one inch in length, five-eighths of an inch wide and seven-sixteenths of an inch thick. An ordinary umbrella is used for an aerial.

ON MAR. 28 the C. M. & St. P. railway announced that it had installed radio receiving sets on its Pioneer Limited trains between Chicago and St. Paul and Minneapolis. It is to be for the use of passengers, and news received while the train is enroute will be posted.

THERE are now about 100 broadcasting stations in this country, making it possible for one in any section to listen in and to receive some parts of the various services that are being sent out. The development of the possibilities of the field is only now beginning.

RALSTON, IA.—The Ralston Farmers Elevator Co. has installed radio equipment. One night recently the manager, E. L. Kreger, was able to hear musical concerts broadcasted from Pittsburgh, Denver and Cincinnati. It is to be used in obtaining market reports, chiefly from Omaha.

AFTER a series of tests to determine whether a swiftly moving train might be kept in touch with radio stations, the D. L. & W. R. R. announced Apr. 1 that a train in a long tunnel had been reached as satisfactorily as when it was in open country.

PLANS are being made to equip fire boats in New York harbor with radio equipment to permit the authorities on shore to control the movement of the boats even when they are out of touch with the regular telegraph stations at their respective berths.

A RADIO toll service is expected to be in operation by the Bell Telephone System in New York City by Apr. 15. A second station will be opened in St. Louis in May, and still others as rapidly as traffic warrants. At first, all who desire may pick up the messages, but experiments are now being conducted with a device to give secrecy.

AUTOMATIC sending and receiving machines for wireless communications have been perfected, according to a recent announcement. The receiving instruments type the messages, and may be made to do this in code, thus preserving secrecy. It is not necessary for an operator to be present while a message is being received, thus making the machine doubly valuable, as the message will be copied, ready for reading at any time.

TO ELIMINATE the relaying of its quotations to the sending station the Chicago Board of Trade is erecting a sending booth in the gallery of the smoking room where the operator commands a view of the large blackboard on which all the prices made in the local pits are instantly posted. The booth is equipped also with a receiving set, having a single wire antenna extending vertically to the roof on the La Salle street side of the Board building. L. B. Mitchell, who for years sent out the Board's quotations, has made a thoro study of the radio, and has been given complete charge of the Board's wireless, while E. J. Chronister is in charge on the floor.

Asks for Radio Investigation.

On Mar. 30, Representative Britten, of Illinois, requested congressional investigation of the operations and accounts of the Radio Corporation of America, the American Telephone & Telegraph Co., The Westinghouse Electric & Mfg. Co., the General Electric Co., and the United Fruit Companies. He introduced a resolution directing the attorney general to conduct an inquiry, and said his attention had been called to a cross licensing agreement between the companies giving the Radio Corporation of America complete control of the manufacture, sale and regional rights of the fundamental appliances and parts connected with wireless communication.

In speaking about the matter, Mr. Britten said that altho the shortage of radio tubes is so great as to inconvenience amateurs, the government is refused permission to sell nearly a half million tubes which it has on hand as surplus war material. The supply in government warehouses he described as sufficient to satisfy the requirements of the army and navy for 500 years.

A BILL has been introduced in the house by Rep. McClintic, of Oklahoma, to restore to state railroad commissions most of the jurisdiction exercised by them over intrastate questions prior to the war. It would specifically omit the language of the Interstate Commerce Act which provides that orders of the Interstate Commerce Commission take precedence over state laws and the decisions of state rate making authorities.

THE RESULTS of the study of biological and environmental factors which determine the success or failure of experiments in crossing wheat and rye are reported in a recent number of the Review of the International Institute of Agriculture, Rome. The experiments were conducted in Germany, and they covered the various phases of the subject that are of interest to plant breeders from the purely scientific viewpoint of their profession.

Making Practical Use of the Radiophone.

The Merriam Commission Co. has taken advantage of the broadcasting of market quotations by the Omaha Grain Exchange, equipping J. F. Mead, ass't mgr. for the company, with a receiving set and sending him out into the country.

One week Mr. Mead was stationed at Norfolk, Neb., another week at David City, and at various times he will visit other points. He has a small, portable receiving set that can be erected in ten or fifteen minutes wherever a place can be found to hang the aerial. He has been able to get the market quotations regularly, with great benefit to his company and to the country grain dealers.

By the use of the same instrument, a large audience at a hotel in Norfolk was able to enjoy the concert given by the Omaha Grain Exchange recently.

AN ITALIAN decree has been issued continuing the suspension of import duties on cereals until June 30.

Milwaukee Chamber of Commerce Re-elects President.

H. H. Peterson, who has acceptably filled the office of pres. of the Milwaukee Chamber of Commerce for the past year, has just been re-elected for another term.

In 1907 his first official connection with the Chamber began, when he was chosen a member of the board of arbitration. He was elected a director in 1913, serving until 1916. In 1917 he became the first vice pres. and served in that capacity for four years.

He is pres. of one of the oldest of the grain receiving firms, L. Bartlett & Son Co., with whom he began as stenographer in 1889, working up thru the various office positions until he became sec'y and treas. in 1901, when Mr. Bartlett retired. A portrait of Mr. Peterson is given herewith.



H. H. Peterson, Milwaukee, Wis., Elected Pres. Chamber of Commerce.

Grain Trade News

Reports of new firms, changes, deaths, casualties and failures; new elevators, improvements, fires and accidents are welcome. Let us hear from you.

ARKANSAS

Ft. Smith, Ark.—The Consolidated Flour Mfg. Co., Hutchinson, recently sold its holdings here.

CALIFORNIA

Santa Cruz, Cal.—We bot property to build a warehouse 50x150 ft. for handling grain and poultry feeds in carlots. Our present building is leased and is now too small for the business. —Santa Cruz County Farm Bureau Exchange, J. H. Hauschildt, mgr.

CANADA

Point Edward, Ont.—A \$120,000 elvtr. is to be erected here, Grand Trunk Railway officials have announced.

Toronto, Ont.—Donald Urquhart, well known in the grain trade here, died recently at his home in Hensall. A widow and two daughters survive him.

Winnipeg, Man.—Joseph M. Bessette, formerly mgr. of the Adanac Grain Co., must stand trial on a charge of theft of \$60,000 from the company, which is now insolvent. Proceedings were stayed on four charges of fraud.

Orcadia, Sask.—The elvtr. of the N. Bawlf Grain Co., Ltd., burned Mar. 23, and is a total loss. The elvtr., of 30,000-bu. capacity, was full of grain, mostly wheat. This is the second fire here in elvtrs. within the past three months.

Fort William, Ont.—Russell McCabe, assistant electrician at the Grand Trunk Pacific Elvtr., suffered severe burns recently thru a short circuit of 550 volts behind a switchboard where he was working. He was taken to a hospital for treatment.

St. Catharines, Ont.—The Monarch Eng. Co. is building a concrete cleaning house, and adding 150,000 bus. storage to the plant of the Canadian Shredded Wheat Co., the additional storage replacing steel tanks formerly used. The company is also installing a Carter-Mayhew disc separator, Invincible receiving separator and milling separator, and Link-Belt Silent Chain.

COLORADO

Platner, Colo.—N. E. Gailey has bot an elvtr. here.

Otis, Colo.—An auto truck dump has been installed in the elvtr. of M. R. Russell.

Hygiene, Colo.—We are contemplating building a new elvtr. here.—Farmers Union Co-op. Elvtr. & Stock Co.

Seibert, Colo.—I succeeded C. W. Carpenter as mgr. of the Seibert Farmers Equity Exchange Mar. 1.—E. M. Short.

Flagler, Colo.—We are enlarging our elvtr. by putting three bins over driveway which will hold 4,000 bus. Installing two motors, one 7½-h.p. and one 5-h.p., the first for the leg and the second to operate the cleaner. We have put in Hall Distributor, manlift and 4-bu. Richardson Automatic Scale.—Mosher & Roberts.

DENVER LETTER.

Jas. E. Bennett & Co., Chicago, have opened an office here with Carl Hendrickson in charge.

C. L. Gilmore has resigned his position as mgr. of the coarse grain dept. of the Hall Baker Grain Co. and will take up farming.

I am mgr. of the Colorado Brokerage Co. which firm is a partnership of myself and Joel W. Wilson. We began operations Feb. 1.—Ernest Lieber, mgr. Colorado Brokerage Co.

Ernest Lieber, mgr. of the Colorado Brokerage Co., has been appointed receiver for the Scott-George Grain Co. which suspended business Jan. 24.

I succeeded L. F. Flower as mgr. of the Western Produce Sales Co., but discontinued business Mar. 9. I will ship grain in carlots from Western, as I have done in the past.—F. J. Alton, Glenwood Springs.

IDAHO

Midvale, Ida.—G. A. Urquhart has quit business here and his warehouse is closed.—F. D. Cooper.

Bonner, Ida.—The Kootenai Valley Produce Co. will erect an elvtr., warehouse and feed mill to cost \$10,000.

Ferdinand, Ida.—The Farmers Elvtr. Co., recently incorporated here, succeeds the Ferdinand Rochdale Co.

American Falls, Ida.—T. Lloyd of Oxford is the new mgr. of the Globe Grain & Mfg. Co. here, succeeding Chas. Dollar.

ILLINOIS

Bushnell, Ill.—J. Jackson is now mgr. of the Farmers Elvtr. Co.

Penfield, Ill.—W. C. Austin is the new mgr. of the Farmers Elvtr. Co.

Roodhouse, Ill.—I am now agent for V. C. Elmore here.—R. A. Mansfield.

Roselle, Ill.—W. C. Hattendorf is the new mgr. of the Farmers Co-op. Elvtr. Co.

Oneida, Ill.—The Oneida Farmers Elvtr. Co. recently filed a certificate of dissolution.

Weston, Ill.—The Weston Grain Co. recently voted to change its name to the Weston Grain Co. Co-op.

Glasford, Ill.—Howard White has been appointed receiver for the Glasford Banner Farmers Elvtr. Co.

Minonk, Ill.—Wm. Tucker, formerly representing Lamson Bros. & Co., Chicago, here, has removed to Paxton.

Curran, Ill.—The elvtr. of the C. R. Lewis Grain Co. burned with a loss of several thousand bushels of grain on Mar. 22.

Streator, Ill.—The Streator Mill & Elvtr. Co., incorporated with a capital stock of \$25,000 by A. E. Newman, A. R. Wolfe and C. S. Cray.

Aledo, Ill.—Stockholders of the Farmers Grain & Coal Co. here voted recently to increase the company's capital stock from \$10,000 to \$20,000.

Hillview, Ill.—V. C. Elmore is to build a new elvtr. to replace the one burned recently.—R. A. Mansfield, agt. for V. C. Elmore at Roodhouse.

Standard, Ill.—I am mgr. of the Standard Co-op. Elvtr. Co. here.—Macauley, mgr. Standard Co-op. Elvtr. Co. (Geo. Kettwig was mgr. during 1920 and 1921.)

Muncie, Ill.—The Muncie Elvtr., formerly operated by the Farmers Co-op. Elvtr. Co., was sold recently to a new company formed by 60 farmers in this vicinity.

Union Hill, Ill.—The Union Hill Farmers Elvtr. Co. was recently organized and John Houghton elected pres., Fred Wepprecht, vice-pres., and Louis Siemerling, sec'y and treas.

Ursa, Ill.—The Ursa Grain Co. which operates here and at Rock Creek, was given damages against O. Shupe, on account of Mr. Shupe's failure to deliver wheat in accordance with verbal contract.

St. Charles, Ill.—The elvtr. of W. P. Lillibridge burned Mar. 20 with a loss to the owner of \$2,500. The contents of the building, owned by Geo. L. Marshall, were also burned, causing a loss to him of \$3,000.

Lerna, Ill.—Fire destroyed the elvtr. and warehouse of E. L. Champion Mar. 22, causing a loss of \$15,000, partially covered by insurance. A car of oats and a car of corn also burned. The fire is believed to have originated from sparks of a locomotive igniting sawdust, thru an open window in the "frost-proof" room.

Chrisman, Ill.—The firm of Jones & Waldruff has been dissolved. The grain business will in the future be operated by the Big Four Elvtr. Co. and will be managed by R. L. Waldruff. Oscar Jones, who formerly managed the business of Jones & Waldruff, will manage the H. C. Woodyard Grain Co.—Jones & Waldruff.

Carlock, Ill.—The Farmers Elvtr. Co. bot the elvtr. and business of O'Hare & Schwartz, and will take possession May 1.

Granite City, Ill.—Five creditors filed bankruptcy petitions against the Temtor Corn & Fruit Products Co. and the plant was closed Mar. 25. R. L. Evans was appointed receiver. The company has a \$2,000,000 plant here.

Campbell Sta. (Danville p. o.), Ill.—A meeting was recently held here by farmers interested in building and operating a new elvtr. At a second meeting Don Britt, John Linne, J. C. De-Neal, Emil Paulus and Henry Linne were selected to draw up plans for organization and stock selling.

Timewell, Ill.—J. E. Wilson sold his hay and coal business to the Lewis Grain Co. of Springfield. The new owners intend to erect a \$4,500 elvtr. equipped with latest machinery and electric motor. James Williams, formerly mgr. of the Farmers Co-op. Co. here, will buy grain and hay for the company.

Hindsboro, Ill.—Frank Fowler, a farmer near this place, is suing Porterfield & Son, grain dealers here, for \$10,000 in damages sustained in an accident at the elvtr. last October. He drove his team and wagon upon a wagon dump, which caved in, dumping the wagon and team thru the hole and pitching Mr. Fowler between the team and the wagon. He sustained a broken shoulder and four broken ribs.

CHICAGO NOTES.

The Wm. Nash Co. is moving from the Postal Bldg. to the Board of Trade Bldg.

Repairs are being made to the engine of the Chicago, St. Louis & Annex Elvtr. by the J. Rosenbaum Grain Co. and the plant will remain closed for two weeks.

Clarence H. Thayer was suspended from the Board of Trade for five years by the board of directors. He was charged with accepting trades while insolvent.

At the annual election of officers for the Board of Trade Fellowship Club, held Mar. 28, the following were selected: Pres., Frank Worack; vice-pres., James Murphy; sec'y-treas., W. B. Fenton. Directors are as follows: James Bagley, Doc Bacon, Roy McNellis, Harold Wall, J. P. McHugh, Art Weinert, Andy Beringer, W. Hall and Herman Schock.

The following have been admitted to membership in the Board of Trade: E. J. Creighton, W. G. Moorhead, Clarence L. Graff, J. H. Ehrhardt, R. J. Kudlata and A. G. Boesel. Memberships transferred are Chas. E. Gifford, Myron K. Bettis, Estate of Albert L. West, P. Tietgens, D. I. Van Ness and Francis W. Waller. A membership sold recently at \$6,700.

At a recent meeting, directors of the Board of Trade adopted and ordered posted for ballot, two amendments to the rules. The first is to give directors the right to deny any member using his individual name to contracts, entrance to the exchange floor, and to prevent any such member from making trades, when his company is found to be insolvent by a committee. The second is to give the Board of Trade's auditor the privilege of examining the books of any member. In case of refusal the member is to be suspended. Both amendments are published in full elsewhere in this number.

The directors of the Board of Trade have approved for ballot the addition of the following new paragraph to Sec. 9 of Rule IV: Any member, firm or corporation accepting orders for the purchase or sale of any of the commodities dealt in under the rules of this Association for future delivery, from a non-member corporation, shall obtain in advance from such non-member corporation a written authorization to the effect that the manager or officer of said corporation giving such order, or orders, is duly authorized by his corporation to buy or sell such commodities for future delivery under the rules and regulations of this Association for the account of his corporation, and the name shall be entered upon the books of the aforesaid member, firm or corporation accepting the same in the name of the corporation for which the order or orders were made; in addition to the regular confirmation prescribed by the rules, written notice of each transaction shall be mailed to some executive officer of the said corporation, other than the manager or officer giving the order. A violation of any of the provisions of this paragraph shall be punishable by suspension for such period as the Board of Directors in its discretion may determine; provided, however, that in the opening of new accounts a reasonable time for the securing of such authorization for the first order may be allowed.

The finance com'te of the Board of Trade has set the rate of interest on advances on Bs/L at 6% during April.

Creditors of E. W. Wagner & Co. are reported to be accepting the offer of 50% settlement cash and 50% settlement in notes, as over half of them have signed in favor of it.

Members of the Board of Trade voted down the proposition to change the rules to permit commission houses paying profits on open trades. The count was 334 against and 121 for the change.

Van Wie & Moorhead have opened a cash grain dept. in connection with their hay and feed business, and A. A. Curry, for years on the exchange as floor salesman, will handle their carlots on the board.

INDIANA

Messick, Ind.—The Messick Elvtr. is now being managed by Harold Millikan.

Yeddo, Ind.—Morton Ford of Kingman is the new mgr. of the Farmers Elvtr. Co.

Goodland, Ind.—The Farmers Elvtr. Co. installed a 75-h.p. electric motor recently.

Hovey (Griffin p. o.), Ind.—We sold our elvtr. here to the Price Grain & Elvtr. Co. of Griffin. —A. Waller, A. Waller & Co.

Burr Oak, Ind.—Franklin Overmyer, for many years actively engaged in the grain business, died here Mar. 18 at the age of 87.

Princeton, Ind.—The mill bot here last year by Stout Bros. is being managed by John A. Stout. Orville Stout is the other partner.

Mardenis (Huntington p. o.), Ind.—The elvtr. of the Mardenis Equity Exchange here has been purchased by E. S. Brown, who will operate it.

Jamestown, Ind.—Newton Busenbark, Crawfordville, who recently bot an elvtr. here, has let contract to change from steam to electric power.

Indianapolis, Ind.—The Farmers Grain Dealers Ass'n of Indiana incorporated recently. J. S. Minch, Fred Roberts and H. H. Potter are directors.

Francesville, Ind.—J. M. Hudgens has resigned as mgr. of our plant here and Geo. C. Fox has succeeded him.—Crabbs-Reynolds-Taylor Co., Crawfordville.

Indianapolis, Ind.—The following have been elected to membership in the Indiana Grain Dealers Ass'n: Wolff & Miller, Lakeville, Ind.—Chas. B. Riley, sec'y.

Dundee, Ind.—The Urmston Grain Co. has contracted for the erection of a small addition to its elvtr. to house the newly installed motor-driven attrition mill.

Malden (Valparaiso p. o.), Ind.—The Morgan Township Farmers Co-op. Ass'n bot the elvtr. here of P. E. Goodrich. They had previously intended to build, having bot a site.

Marion, Ind.—The Farmers Co-op. Elvtr. Exchange held a meeting recently with the purpose of reorganizing. The new owners of the company will issue non-assessable common stock to the amount of 50%.

Carlisle, Ind.—White & Wilkinson have installed a new 60-h.p. crude oil engine and are going to equip to receive grain at the rate of 2,000 bus. per hour.—Roy Clodfelder, prop. Oaktown Grain Co., Oaktown.

Lafayette, Ind.—Edward Jamison has been elected mgr. of the Lafayette Co-op. Elvtr. Co. which recently took over the elvtr. and business of Born & Co. He was for 20 years connected with the feed department of the Crabbs-Reynolds-Taylor Co.

Akron, Ind.—Thieves entered the elvtr. of the Akron Co-op. Elvtr. Co. recently and obtained money, papers and 12 sacks of flour. Entrance was gained thru a window and the handle of the safe was pried off, altho the safe was not locked.

Frankfort, Ind.—The Clinton County Farmers Co-op. Elvtr. & Merc. Co. incorporated with a capital stock of \$25,000. Directors are D. F. Maish, P. E. Merchant, M. M. Smith, F. E. Pence, E. C. Fisher, H. S. Irwin, J. W. Maish, Ray Bell, W. O. Reddick, A. B. Gossett and F. A. Jenkins.

Mt. Ayr, Ind.—The Farmers Co-op. Grain Co. is reported to be bankrupt and a petition may be filed at any time. The liabilities of the company are between \$29,000 and \$30,000, while the assets are difficult to determine, as the railroad has ceased operation and if it does not again operate, the company's plant will be worth next to nothing.

Hartford City, Ind.—I will operate the grain business I bot here as the Cotterman Grain & Mlg. Co.—A. I. Cotterman.

Clayton, Ind.—Judgment for \$2,000 against the Clayton Mlg. Co. has been asked by John Worrell. He also asked that a receiver be appointed. The purpose of the suit is to effect reorganization of the company, and it is understood that no creditor will lose money. J. T. Albertson has been appointed receiver.

Carlisle, Ind.—I have bot land on the C. & E. I. R. R. here and will build an elvtr. Work will begin May 1 and the house will be completed June 20, the Reliance Constr. Co. doing the work. Machinery will be furnished by the Union Iron Works, Fairbanks, Morse & Co. and the Richardson Scale Co.—Roy Clodfelder, prop. Oaktown Grain Co., Oaktown.

Sheldon, Ind.—The elvtr. of the Sheldon Equity Exchange was sold to Jacob Harber, a farmer, for \$16,650. Bidding by other parties brought the selling price considerably above the appraised value. Theodore Wentz, receiver of the company, acted as auctioneer. It is understood that another farmers' company will be formed here, but will not operate on the equity basis, instead being operated purely as a business corporation.

IOWA

Iowa Falls, Ia.—The Flaney Grain Co. of Sioux City recently opened an office here.

Persia, Ia.—I have taken over the elvtr. of the Armour Grain Co. here.—John O. Heasley.

Coin, Ia.—The elvtr. of Elmer Harris is having new equipment installed and the driveway reconstructed.

Storm Lake, Ia.—Fred Bayne is mgr. of the office Van Wie & Moorhead, Chicago, have opened here.

Dayton, Ia.—The name of our new mgr succeeding R. A. Friend is E. R. Larson.—Farmers Elvtr. Co.

Lakeview, Ia.—I have resigned as mgr. of the Farmers Union Grain Co. to take effect May 1.—E. C. Sherwood.

Oskaloosa, Ia.—Van Wie & Moorhead, Chicago, have opened an office here with C. J. Brophy in charge.

Eldora, Ia.—E. B. Krominga of Humboldt is the new mgr. of our elvtr., succeeding Mr. Terill.—Farmers Co-op. Elvtr. Co.

Lisbon, Ia.—R. P. Andres, farmer in this vicinity, has bot the Fiala Elvtr. here. Mr. Fiala is leaving Lisbon to go to Iowa City.

Emmetsburg, Ia.—E. J. Ruddy of Pocahontas is the new mgr. of the Farmers Co-op. Elvtr. Co., succeeding V. Fitzpatrick who resigned.

Center Point, Ia.—R. B. Jones has resigned as mgr. of the Farmers Co-op. Grain & L. S. Co., to take effect as soon as a successor is obtained.

Pringhar, Ia.—C. E. Propps, whose elvtr. was destroyed by fire recently, is having plans made and obtaining bids for the erection of a new plant.

Eleanor, Ia.—The Gifford Grain Co. of Cedar Rapids bot the site here where the elvtr. stood before it burned last year. It plans to erect a new house.

Grand Junction, Ia.—On April 1 I changed my firm name from the Junction Grain Co. to the Cramer Grain Co.—Delbert Cramer, prop. Cramer Grain Co.

Atlantic, Ia.—Van Wie & Moorhead, Chicago, have established an office here with J. J. French in charge. Radio phone will keep the community posted on markets.

Bondurant, Ia.—The Bondurant Co-op. Live-stock Shipping Ass'n is planning to either build a new elvtr. or buy the one here at present, in time to handle the new crop.

Hinton, Ia.—I have moved from Tipton to this place.—W. T. Mahaffy. (Mr. Mahaffy was formerly a partner in the W. W. Little & Co. which recently sold out at Tipton.)

Spencer, Ia.—Maris DeWolf, sec'y of the DeWolf Grain Co., is out as a candidate for the Republican nomination for representative from Clay County in the Iowa legislature.

Lanesboro, Ia.—Just finished putting new roof on the elvtr. I am installing a feed grinder in the Independent Elvtr.—R. F. Maarsingh, mgr. Farmers Elvtr. Co. and prop. Independent Elvtr.

New Sharon, Ia.—Thieves, who broke into the elvtr. of H. B. McVeigh, stole clover seed valued at \$150.00. One man has been arrested and two others are being sought in connection with the theft.

Garrison, Ia.—The Farmers Lbr. & Grain Co. increased its capital stock from \$20,000 to \$35,000.

Oasis, Ia.—The elvtr. formerly operated by H. R. Bumgardner & Co. is now operated by the Farmers Union Exchange. None to be built here, and this is the only one here.—Mrs. A. Seevell.

Sioux City, Ia.—The Fuller Grain Co., Kansas City, intends to open a cash and future grain office in the Grain Exchange Bldg. here, occupying the offices formerly used by the Armour Grain Co.

Atlantic, Ia.—A. Sein, mgr. of Gund & Sein here, has moved with his family to Glenwood where he will make his home. He will hereafter manage the company's elvtrs. along the Burlington Ry.

Mt. Vernon, Ia.—If costs are not too high this summer, D. E. Hedges & Son intend to erect a mill to be operated in connection with their elvtr. When complete it will be driven by two 20-h. p. motors.

Gaza, Ia.—We bought the elvtr. of J. S. DeVries here and our company will be known as the Thiesen & Abbott Elvtr. Co. I was formerly mgr. of the Farmers Elvtr. Co. at Larrabee.—C. F. Abbott, Thiesen & Abbott Elvtr. Co.

Garner, Ia.—The elvtr. of the Farmers Elvtr. Co. on the Milwaukee Ry. will be closed for the summer, opening again in the fall. This elvtr. has not made expenses for the past two years, according to reports given at the annual meeting of stockholders.

Allison, Ia.—The Gifford Grain Co. of Cedar Rapids has bot the elvtr. here of Bert O'Neil and also the grounds at Eleanor, where the elvtr. was burned last year. They have placed Willard Folkerts in charge here as mgr., and have planned to build a new elvtr. at Eleanor.

Rock Falls, Ia.—The Hubbard Grain Co., Mason City, suffered a \$10,000 loss when their elvtr. containing 4,000 bus. of grain burned April 5. The office building was badly scorched but the scales were undamaged. The engine house also escaped destruction and the engine is still intact.

Woodstock, Ia.—C. Christenson is suing the Independent Grain & Lbr. Co. for \$1,041.94, alleged to be due him on grain from his tenant. The tenant hauled the grain to the elvtr. for storage, and when Christenson asked for payment for his grain, he was told that the tenant had sold it. He asks \$841.94 actual and \$200 exemplary damages, plus interest and costs.

KANSAS

Alida, Kan.—Wm. Bauer has installed a truck dump in his new elvtr.

Bentley, Kan.—J. A. Armour expects to make some repairs on his elvtr. soon.

Russell, Kan.—We succeeded the H. Fose Merc. Co.—J. A. Mehler Merc. Co.

Chetopa, Kan.—Ground has been broken for the new mill of the Chetopa Mill & Grain Co.

Salina, Kan.—The elvtr. of the Shellabarger Mill & Elvtr. Co. is being covered with iron siding.

Glen Elder, Kan.—The report that L. B. Wilcox is building an elvtr. here is incorrect.—F. E. Ranes.

Madison, Kan.—M. L. Saule, prop. of the Saule Mlg. Co., whose plant burned in 1920, has not rebuilt.

Grayling, Kan.—We will enlarge our plant this spring. Present capacity is 10,000 bus.—Farmers Grain & Sup. Co.

Newton, Kan.—W. R. Luby is now supt. of our mill, A. Ruthrauff resigning on account of ill health.—Goerz Flour Mills Co.

Bushton, Kan.—Additional ground has been bot by the Bushton Grain Co. and it is understood that more buildings will be erected.

Wichita, Kan.—The Miller Grain Co. went into bankruptcy in February and will do well to pay 10c on the dollar.—W. T. Whitney, receiver.

Olmitz, Kan.—A Boss Airblast car loader has been installed in the elvtr. of the Farmers Co-op. Ass'n. The company also plans to build a warehouse for handling of flour, feed, cream and produce.

Lindsborg, Kan.—We are going to build a new additional elvtr. some time this spring.—C. M. Bergstrom, mgr. Farmers Union Elvtr. Co. (Reports state that the Eberhardt Constr. Co. was awarded a contract for 100,000-bu. concrete elvtr. by the company.)

Ardell (Offerle p. o.), Kan.—Fred Diers presided over a meeting of farmers here to consider the organization of a farmers' elvtr. company.

Turon, Kan.—The stockholders of the Farmers Elvtr. Co. have voted to sell their property. A local stock company may be formed to take the elvtr.

Sylvan Grove, Kan.—Adolph Hillmer is employed by me, succeeding Otto Niemier, who has gone to Concordia.—Cross Grain Co., E. S. Cross, prop.

Falun, Kan.—I have resigned my position as mgr. of the Farmers Elvtr. Co. at Brookville and am now mgr. here for the Farmers Elvtr. Co.—O. Ivar Norden.

Pleasanton, Kan.—A. J. Buffington succeeds me as mgr. of building and maintaining line of elvtrs. of the Blaker Lbr. & Grain Co. I am retiring.—S. Crawford.

Bluff City, Kan.—A. J. Moore of Caldwell, bot the elvtr. and residence of E. Berry here. He intends to place an agent in charge of the elvtr. to operate it. It is of 30,000-bu. capacity.

Alta Vista, Kan.—A lease has been granted the Robinson Grain Co. of Salina to build a new elvtr. It will be of 20,000-bu. capacity and will be completed before the new crop moves.

Olivet, Kan.—I sold my business known as the Olivet Elvtr. & Lbr. Co. last June to C. S. Petty and R. R. Watson, who operate it as Petty & Watson, with Mr. Watson as mgr.—E. H. Elmore, Los Angeles.

Ottawa, Kan.—There is no elvtr. being enlarged here. Our company completed new 110,000-bu. concrete elvtr. about 15 months ago, making total capacity about 165,000 bus.—C. B. Ross, Ross Mlg. Co.

Ness City, Kan.—Our new 25,000-bu. elvtr. is now complete and is operating fine so far. We have yet to build a warehouse.—H. H. Burns, mgr. Farmers Co-op. Grain Co. (This company incorporated recently.)

Oxford, Kan.—The elvtr. of the Hunter Mlg. Co. is being torn down and being rebuilt, making capacity of 15,000-bus. We will also install automatic scale and air dump.—M. C. Herschberger, agt. Hunter Mlg. Co.

Rolla, Kan.—The L. H. Pettit Grain Co. of Hutchinson is having plans drawn up for a new 25,000-bu. elvtr. here by the W. H. Wenholz Constr. Co. Several new elvtrs. will be built along the Santa Fe this summer.

Kanona, Kan.—The elvtrs. we leased here are owned, one by H. Q. Banta, Oberlin, and the other by Stinson Grain Co., Oberlin. Our lease is good until July 1, with option for another year.—Peerless Flour Mills Co., Norton.

Fremont, Kan.—The Fremont Co-op. Merc. Co., recently incorporated here, is not engaged in the grain business nor do they have a grain elvtr. They may have one some day.—S. O. Yowell, agt. Lindsborg Mill & Elvtr. Co.

Salina, Kan.—About a dozen of the grain companies here moved into their new quarters recently in the Farmers Union Bldg. The board of trade occupies a portion of the top floor and the grain companies the rest of the space.

Varner, Kan.—The Consolidated Flour Mills Co. has the only elvtr. here since the burning of the Farmers Elvtr. The Farmers Elvtr. Co. will not rebuild, but will sell its site.—J. M. Wheeler, agt. Consolidated Flour Mills Co.

Salina, Kan.—H. E. Brooks has resigned as mgr. and vice-pres. of the Western Star Mlg. Co. after 16 years' service, effective as soon as his successor is named. He will just take a rest, having made no plans for the future.

Delia, Kan.—The Delia Grain Co., whose elvtr. burned in January, is building a 20,000-bu. elvtr. equipped with latest machinery. It will have sheller and cleaner of 600-bu. capacity per hour. W. H. Wenholz Constr. Co. is doing the work.

Osage City, Kan.—The Osage City Grain & Elvtr. Co. has been reorganized and the following officers elected: N. M. Douthit, pres.; F. O. Costrom, vice-pres., and E. Miller, sec'y-treas. The above with F. B. Bonebrake and T. H. Lewis compose the board of directors.

Hutchinson, Kan.—The plant of the Rock Mill & Elvtr. Co. burned Mar. 25, with a total loss. The elvtr. contained 30,000 bus. of grain and an adjoining steel tank held about 50,000 bus. of grain, which was badly damaged. Geo. Gano, mayor of Hutchinson, is the proprietor of the plant, and altho the \$175,000 loss was covered by insurance, the loss to him will amount to about \$25,000.—W. H. Wenholz Constr. Co.

Marion, Kan.—We are not in the grain business now.—C. E. Pierce, prop. Cottonwood Valley Mlg. Co.

Garden City, Kan.—The Garden City Co-op. Exchange are repairing their old elvtr. and intend to build new this fall. They are installing machinery that can be used in the new plant. W. H. Wenholz Constr. Co. is doing the work.

Topeka, Kan.—The Shawnee Milling Co. bot the new plant of the Forbes Milling Co., paying \$200,000, and will operate it in conjunction with the present plant. It also plans to erect a \$50,000 warehouse. The capital stock of the company has been increased from \$100,000 to \$200,000.

Assaria, Kan.—The Farmers Mill & Elvtr. Co. at a meeting of stockholders recently decided to replace its elvtr. which burned recently, with a new 20,000-bu. structure, probably of concrete. An effort will be made to have it complete in time for the new crop. After that a 250-bbl. mill will be built.

Great Bend, Kan.—Work has been started on the new elvtr. of the Walnut Creek Milling Co., the forms for the pouring of concrete having been built. Jones-Hettelsater Constr. Co. is doing the work. Machinery already contracted for includes Allis-Chalmers transmission equipment, and Eureka Cleaner, with 40,000 bus. receiving separator.

Kingman, Kan.—The mill of the Associated Mill & Elvtr. Co. here is to be sold as quickly as possible, as well as all other property of the company, which is in hands of receiver. T. H. Urton did not buy the plant here, but he did work for me for a short time.—J. N. Dolley, receiver, Kansas City, Mo. (It was reported recently that Mr. Urton had taken over the plant.)

Ft. Scott, Kan.—W. E. Duerr is now mgr. of the Goodlander Mills as well as mgr. of the White Swan Mills, both plants being owned by the Kansas Flour Mills Co. of Kansas City, Mo. R. L. Jones of the Kansas City branch will be sales manager here, succeeding R. E. Armstrong, who goes to the Kansas City office. W. H. Beall, former local mgr. here, will be engaged elsewhere.

KENTUCKY

Henderson, Ky.—We are offering all our country elvtrs. for sale, but will not sell our terminal elvtr., known as the Union Elvtr. at Evansville, until the country points are sold, as we will continue business if we do not dispose of all elvtrs.—A. Waller, A. Waller & Co.

LOUISIANA

New Orleans, La.—R. J. Barr has moved his offices from the Canal Bank Bldg. to 308 Pirdido Bldg.

New Orleans, La.—We are indebted to Sec'y H. S. Herring of the Board of Trade for a copy of the thirty-ninth annual report covering the year of 1921. The book is paper bound in attractive covers and contains 140 pages of interesting data and information of value to all interested in the doings of the Board of Trade.

MARYLAND

Baltimore, Md.—This city will operate under the daylight saving plan beginning April 10 and ending August 27.

Baltimore, Md.—Plans of the Port Development Commission call for the expenditure of \$50,000,000 in harbor improvements. By modification of the layout of tracks and warehouses, space may be provided for the construction of a large export elvtr.

MICHIGAN

Saginaw, Mich.—The Smith-Connor Hay & Grain Co. is out of business.

Kingsley, Mich.—I am building an elvtr., to be completed by Sept. 1, 1922.—G. W. Parker.

Horton, Mich.—A scooper is operating here. The regular dealer is the firm of Eddy & Son.

Alma, Mich.—The elvtr. of the Farmers Elvtr. Co. was damaged to the extent of \$10,000 by fire Mar. 27.

Gera, Mich.—Our elvtr. here was sold to Chas. Wolohan & Co. of Birch Run.—Brand & Hardin Mlg. Co., Saginaw.

Stanton, Mich.—I operate elvtrs. here and at Sidney. I bot the elvtr. of B. E. Cudwell here last April.—Chas. O. Burgess.

Montague, Mich.—Montague farmers recently organized a Farmers Elvtr. Co. and have bot a tract of land upon which they intend to erect an elvtr.

Eau Claire, Mich.—A new 20-h.p. motor and a Bowsher Cob Crusher and Grinder has been installed in the elvtr. of the Eau Claire Farmers Co-op. Ass'n.

Grand Rapids, Mich.—Three creditors filed a petition in bankruptcy against the E. L. Wellman Co., alleging that the company has been insolvent since Jan. 1.

Prescott, Mich.—The Whittemore Elvtr. Co. of Whittemore has bot the site of the Saginaw Mlg. Co.'s elvtr. which recently burned and will probably erect a new plant.—M.

Union City, Mich.—Niles Hagelshaw is the new mgr. of the Union City Co-op. Elvtr. Co. He succeeds C. J. Miller who went to Marcellus to manage the Marcellus Elvtr. Co.

Midland, Mich.—Oscar Wallen has retired as mgr. of the Midland Co-op. Farmers Elvtr. Co. and Fred Baird is now mgr. Mr. Wallen's farm property requires all his attention.

Eckford, Mich.—Ned Taylor will manage the Eckford Elvtr. which is operated by the Albion-Marengo Co-op. Ass'n. The elvtr. will be open every day hereafter instead of three days a week as heretofore.

Coldwater, Mich.—The Amendt Milling Co. has bot the two mills of the Coombs Milling Co. here and elvtrs. of the company at Vicksburg and Wawseki. The Coombs Milling Co. went into bankruptcy some time ago.

Palms, Mich.—A com'te composed of Chas. Brady, E. Deegan, A. Nobles and W. Babcock was selected to make arrangements for the erection of a farmers' elvtr. to replace the elvtr. of Hubbard & Ryan which burned last year.

Grand Rapids, Mich.—The general offices of the Gleaner Clearing House Ass'n are being moved to Greenville April 1, and the management is being taken over by other parties.—A. F. Bredshall, Gleaner Clearing House Ass'n.

Oakley, Mich.—Plans are nearing completion whereby the farmers in this vicinity will have a co-operative elvtr. It is planned to have the elvtr. erected near the stockyards to facilitate shipping. Forty-two farmers are members to date.

Detroit, Mich.—The recent election of officers of the Board of Trade brot no changes. H. C. Carson was re-elected pres., R. L. Hughes, 1st vice-pres., and W. R. Jossman, 2nd vice-pres. Directors: F. Wm. Lichtenberg, Gerald Hulett, Frank Caughey, T. W. Swift, F. W. Blinn, H. B. Simmons, A. S. Dumont and C. R. Huston.

Berville, Mich.—Fire completely destroyed the elvtr. of Bottomly & Kennedy here on Mar. 24. The fire started about noon and in less than an hour the plant and several adjoining hay sheds were burned to the ground. Officials of the company estimate the loss at \$25,000. A large quantity of oats and hay was in the building.

Detroit, Mich.—The Wabash Railroad has brot suit against several firms here for demurrage, dating back to 1916. It seems that there was a tie-up at one of the elvtrs. in that year and several cars of grain were held up for some time. While there was trouble at the time, it was believed to have been settled, but now the railroad company brings suit, just within the time limit. The Board of Trade will fight the claims.

MINNESOTA

Blooming Prairie, Minn.—L. G. Campbell has sold his interest in the flour mill and electric power plant.

Russell, Minn.—The Independent Farmers Elvtr. Co. is making repairs on their elvtr. T. E. Ibberson Co. is doing the work.

Olso, Minn.—The elvtr. of the Spaulding Elvtr. Co., Warren, burned here Mar. 23 with a loss of office building, warehouse, elvtr. and three cars of grain which were in the elvtr.

Donnelly, Minn.—The National Elvtr. Co., Minneapolis, will make extensive alterations on their plant here and also build a new office building. The T. E. Ibberson Co. is doing the work.

Brownsdale, Minn.—There will be no new elvtr. here this season. Farmers talked of building but there is nothing in it. I have operated the Hunting Elvtr. for 18 years and they seem satisfied.—C. M. Syck, agt. Hunting Elvtr. Co. (It was reported that farmers were being organized at this place.)

Northrup, Minn.—A. C. Becker is having new equipment installed and repairs made on his elvtr. here. T. E. Ibberson Co. is doing the work.

Ash Creek, Minn.—We are now repairing the residence owned by our company. I took charge here Feb. 1 as mgr.—C. E. Kelly, mgr. Ash Creek Farmers Elvtr. Co.

Crookston, Minn.—The Sandberg-Roe Co. incorporated with a capital stock of \$30,000 to deal in grain. A. G. Sandberg and Lillian Sandberg, Crookston, and Charles Roe, Minneapolis, are the incorporators.

Richmond, Minn.—The plant of the Richmond Milling Co. was struck by lightning Mar. 25 and destroyed by fire. The elvtr. contained 7,000 bus. of wheat and the mill 900 bbls. of flour. Total loss, \$48,000.

MINNEAPOLIS LETTER.

The following memberships in the Chamber of Commerce were transferred recently: E. B. Warner to Leonard Elg and C. A. Crowl to T. B. Corlett.

Effective May 1, the Chamber of Commerce will operate on the daylight saving plan, opening and closing one hour earlier than usual. This was the result of a vote by directors.

John McPhee, well known solicitor for the Hoover Grain Co., was accidentally killed Mar. 22 at his home in Sioux Falls. He touched an electric light fixture while standing in a bathtub full of water and was electrocuted.

The Security Elvtr. Co. has suspended operations, due to the failure of E. L. Welch & Co., as E. L. and T. H. Welch were largely interested in the elvtr. company. E. L. Mattson and M. D. Chandler have been appointed trustees for the E. L. Welch Co.

MISSOURI

La Belle, Mo.—Mail addressed to J. J. Richards Mill has been returned unclaimed.

Jamesport, Mo.—Mail addressed to the Musselman G. S. Co. has been returned unclaimed.

Monroe City, Mo.—John Utterback is the new mgr. of the Farmers Elvtr. & Exchange Co.

St. Joseph, Mo.—The Herries-Yancey Grain Co. has changed its name to the Yancey Grain Co.

Golden City, Mo.—J. P. McMillen intends to paint his elvtr. soon and install an automatic scale.

Perryville, Mo.—The Perry County Co-op. Warehouse & Elvtr. Ass'n incorporated for \$40,000. G. B. Huber is a director.

Columbia, Mo.—We will not build an elvtr., but may have to build a warehouse.—Columbia Co-op. Warehouse Ass'n, U. C. Crane.

Anglum, Mo.—We will build a 2-story concrete warehouse here, 30x60 ft.—Florissant Valley Co-op. Elvtr. Ass'n, E. R. Goddard, mgr.

St. Louis, Mo.—At a meeting of the St. Louis Grain Club, the re-establishment of the credit clearing service received favorable consideration.

Jasper, Mo.—U. Gray, formerly with Gilbreath & Sons grocery, at Carthage, will go to this place to manage the elvtr. of the Farmers Co-op. Elvtr. Co.

Eureka, Mo.—The Eureka Co-op. Elvtr. & Warehouse Ass'n is arranging for the purchase of the Manson Elvtr. here. It will start doing business shortly.

Tarkio, Mo.—I have moved to this place from Highland, Kan.—J. L. Lininger. (He was formerly agt. for the Aunt Jemima Flour Mills Co. at Highland.)

Amsterdam, Mo.—A. C. Graves has resigned as mgr. of the Blaker Lbr. & Grain Co. here, having acquired an interest in a lumber yard at Carl Junction.—S. Crawford, Pleasanton.

Holt, Mo.—The Holt Grain & Supply Co., recently organized and incorporated here, has taken over the elvtr. of Ellington & DuVall. P. M. Anderson is the mgr. of the new company.

KANSAS CITY LETTER.

B. J. Geisel and H. L. Winters were elected to membership in the Board of Trade.

Geo. K. Walton will be connected with Goffe & Carkner. He was formerly with the Hipple Grain Co.

A. J. Bulte, gen. mgr. of the Larabee Flour Mills Corp., perished in a hydroplane disaster off the coast of Florida recently.

Geo. H. Davis has been appointed chairman of the finance com'te of the Board of Trade, to succeed E. D. Fisher, who recently died.

The Kansas City Grain Club will hold a meeting soon to hear the report of a com'te appointed some time ago to lay plans for a grain credit bureau.

F. R. Warrick, formerly mgr. of the shipping dept. of the R. J. Thresher Grain Co. here, is now located at Wichita, Kan., where he will operate an elvtr. for the Kansas Flour Mills Co.

E. M. Kauth will be connected with the Morris Grain Co. here. He was formerly with Pillsbury & Co., Minneapolis. A membership will be gotten for him in the Board of Trade on transfer from W. A. Moses of Los Angeles.

The machinery for the Liberty Mill, recently purchased by the Washburn-Crosby Co. of Minneapolis, is being installed, a concrete floor is being put in the basement and the building is being painted. Operations are expected to begin about June 15.

At a meeting of the stockholders of the Rodney Milling Co. recently, H. A. Sterling, mgr. of the company, was elected to presidency and also made treas. of the company, succeeding the late J. L. Rodney. Edwin R. Morrison was named sec'y and C. B. Beckenbach, sales mgr., was made ass't sec'y.

The supreme court of Missouri has upheld the decision of Gov. Hyde in removing J. T. Bradshaw of Kansas City as state grain and warehouse commissioner and appointing T. J. Hedrick as his successor, last June. Mr. Bradshaw started proceedings to render void the governor's findings and attempted to have Hedrick ousted. The latter's title to the office is now assured.

MONTANA

Galata, Mont.—The elvtr. of the International Elvtr. Co. was destroyed by fire.

Outlook, Mont.—The office building of the Farmers Elvtr. Co. of Outlook burned Mar. 22.

Livingston, Mont.—The Gary Hay & Grain Co. will build a new warehouse and office building adjoining their elvtr.

Wheat Basin, Mont.—The Farmers Elvtr. Co. has been closed here for the season.—Emil Reiner, agt. Occident Elvtr. Co.

Belt, Mont.—The report that we have just incorporated is incorrect, as we have been incorporated for several years.—A. E. Hotchkiss, mgr. Belt Farmers Mill & Elvtr. Co.

NEBRASKA

Dale, Neb.—The elvtr. of Nye-Schneider-Jenks Co. has been closed here.

Atlanta, Neb.—The Atlanta Equity Co-op. Exchange is the new name of the Atlanta Equity Exchange.

Broadwater, Neb.—T. O. Haiston is now mgr. of the Broadwater Grain Co. J. R. Marshall was formerly mgr.

Powell, Neb.—Farmers in this vicinity are organizing a company to take over the Powell Elvtr. before the next crop.

Bradshaw, Neb.—We finished the installation of a 300-bu. Fairbanks Hopper Scale Feb. 14.—Gilbert Grain Co., by C. L. Gilbert.

Dewitt, Neb.—The Farmers Elvtr. Co. has decided to liquidate following a meeting of directors recently. Their elvtr. may be sold.

Hebron, Neb.—Thomas Morgan of Shead is the new mgr. of the Hebron Farmers Elvtr. & Shipping Ass'n, succeeding L. McKimmey who resigned recently.

Sunol, Neb.—The Farmers Co-op. Ass'n of Sunol incorporated with capital stock of \$25,000. Incorporators are B. Allington, E. Wickard and L. E. Allington.

Lincoln, Neb.—C. C. Crittenden has been appointed director of the Grain Exchange to fill the unexpired term of C. J. Slater, who has moved to Omaha.

Elkhorn, Neb.—I have been located here since Nov. 1, 1921, moving here from Lewis, Ia.—W. F. Sheppard. (Mr. Sheppard was formerly mgr. of the Farmers Union Exchange.)

Aurora, Neb.—The old Lysinger Elvtr. has been bot by W. L. Dietz and J. B. Hamilton, who intend to install a feed grinder, and will operate a feed and coal business.

Rogers, Neb.—Farmers in this vicinity held a meeting recently and organized a company to handle grain. The capital will be \$25,000 with \$15,000 paid up. On account of the poor condition of the idle elvtr. here, it was decided not to buy it, but to build a new up-to-date house.

Emerald, Neb.—The elvtr. of the Farmers Co-op. Elvtr. Co. is being covered with galvanized iron. They are also installing a truck scale.

Schuyler, Neb.—At a meeting of a com'te representing stockholders of the Wells-Abbott-Nieman Milling Co., reorganization of the company was announced, and the new corporation will be capitalized for not less than \$300,000. Three years ago the company incorporated for \$3,000,000, but financial difficulties forced it into bankruptcy last August. The plant of the company here was sold to Dale Clark, representing the stockholders, some time ago and it will be opened for business in the near future.

NEW ENGLAND

Springfield, Mass.—The plant of the Springfield Hay, Grain & Coal Co. was damaged by fire Mar. 29.—S.

Bookfield, Mass.—L. H. Bond, grain dealer, who did not miss a day's business in 42 years, retired recently.—S.

Torrington, Conn.—The warehouse of F. U. Newcomb, grain dealer here, was damaged by fire recently. Loss, \$12,000.—S.

Boston, Mass.—The J. E. Soper Co., which recently went bankrupt, is out of business.—Wm. L. Pullen, trustee in bankruptcy.

Stamford, Conn.—The Stamford Flour & Grain Co. incorporated for \$50,000 by J. C. Magner of Norwalk and M. and S. Lavinsky of this place.—S.

Bridgeport, Conn.—The National Grain Corp. issued additional shares of capital stock to the extent of \$75,000, making the outstanding capital stock \$100,000.

Lowell, Mass.—The Thorndike Grain & Coal Co. contemplates new grinding machinery in the plant they are building to replace the one burned.—W. W. Wilder.

Rockland, Me.—The Great Grain & Grocery Co. incorporated with a capital stock of \$50,000. Incorporators are D. W. Smalley, C. T. Smalley and D. R. Ames, all of this place.

Woodstock, Vt.—Borden & Howard, Inc., incorporated with a capital stock of \$50,000 to deal in hay, grain, flour and feed. Incorporators are N. E. Borden, E. L. Borden and E. M. Howard.—S.

Lowell, Mass.—We do local business only, no carlot shipping. Have a warehouse now and intend to add grain elvtr. later. We handle grain, feed, flour, hay, straw, field seeds, etc.—A. J. Ryan, Ryan Grain Co.

Saugatuck, Conn.—We are operating grain elvtr. and warehouse. No other carlot shipper here.—A. C. Knorr, sec'y Saugatuck Grain & Supply Co. (This company was reported to have been incorporated at Westport.)

Millbury, Mass.—Burglars gained entrance thru a window to the office of the Millbury Grain Co. recently, but were unable to open the safe. The handle and dial on the door were broken off and the office upset generally in their unsuccessful efforts.

Franklin, N. H.—The Merrimack County Farm Bureau is planning the erection of a grain elvtr. here, and Clyde A. Blake of Hill is in charge. As soon as funds enough are raised, plans will be called for and contracts awarded. They plan to erect a cold storage plant at the same time.—S.

Somerville, Mass.—Fire which started in a carload of hay in the yard of Colbert Bros., soon communicated to the company's warehouse, which burned with a loss of \$15,000. Water thrown on the building in large volumes caused most of the damage to the contents of grain, hay and flour.

NEW MEXICO

Melrose, N. M.—The elvtr. of the Morris Grain Co., leased by them from the Anchor Milling Co., burned Mar. 22 with the loss of \$5,000 in grain. Fire is believed to have started from a gas engine, as trouble was had previously with it.

NEW YORK

New York, N. Y.—C. R. Halboth is now associated with W. T. Harding, Inc.

New York, N. Y.—The Philadelphia Export Co. has opened a branch office in the Produce Exchange Bldg. here, with Carl S. Larsen in charge. Mr. Larsen was formerly with the Milmine Bodman Co.

Buffalo, N. Y.—The Monarch Eng. Co. is electrifying the marine tower of the Export Elvtr.

New York, N. Y.—Chas. Anhalt, formerly representing E. G. Porter, is now with the Buckwheat Feed & Grain Corp.

Waywood, N. Y.—The Buckwheat Feed & Grain Corp. has established a branch office here with C. E. Swarthout in charge.

Oswego, N. Y.—The Cornwall Terminal Co. is contemplating erecting a large elvtr. here, but does not expect that work will be started this year.

Buffalo, N. Y.—The new marine towers of the Mutual Elvtr., replacing the ones wrecked in a windstorm, are being built by the Monarch Eng. Co.

NORTH DAKOTA

Plaza, N. D.—B. J. Oliva is the new mgr. of the Plaza Equity Elvtr. Co.

Scranton, N. D.—Mail addressed to the Scranton Mill has been returned marked "closed."

Mandan, N. D.—The mill of the Russell Miller Mfg. Co. burned here recently; \$20,000 loss.

Ramona, (Woodworth p. o.) N. D.—Mail addressed to Ed Alfson has been returned marked "removed."

Lehr, N. D.—The Farmers Elvtr. Co., whose elvtr. burned Oct. 30, 1920, did not rebuild.—E. Dorheim, Jenner Elvtr. Co.

Omeeme, N. D.—Mail addressed to the Omeeme Co-op. Farmers Elvtr. Co. has been returned marked "out of business."

Ramona, N. D.—This place has changed its name to Goldwin. The only elvtr. here is operated by Sorenson Bros.—G. V. Skinner.

Cayuga, N. D.—E. Erlandson resigned as mgr. of our elvtr. last August. I am now mgr.—D. T. Fystrom, mgr. Cayuga Farmers Elvtr. Co.

Norma, N. D.—T. E. Ibberson Co. has been awarded the contract for the erection of an elvtr. here for the Minnekota Elvtr. Co. of Minneapolis.

Chaffee, N. D.—The Farmers Elvtr. Co. awarded T. E. Ibberson Co. the contract for new coal handling equipment and extensive repairs on their elvtr.

Velva, N. D.—The home office of the I. L. Berge Elvtr. Co. may be changed to some place more centrally located, according to I. L. Berge, pres. of the company.

Scranton, N. D.—The mill and elvtr. of the Bagley Elvtr. Co. are closed, as well as the Columbia Elvtr. Co. and the Empire Elvtr. Co. Ours is the only one open.—H. E. McKennett, mgr. Scranton Equity Exchange.

Devils Lake, N. D.—The Farmers Mill & Elvtr. Ass'n is making alterations on its plant, adding storage, installing new truck dump and scale, new foundations and new transmission machinery. T. E. Ibberson Co. is doing the work.

Shepard, (Cooperstown p. o.), N. D.—A. I. Sharpe, mgr. of the Shepard Farmers Co-op. Ass'n, recently caught burglars who had recently broken into a store in town. They had hidden their loot in a boxcar where Mr. Sharpe found it. By waiting, he caught the men when they came to get their stolen goods.

OHIO

Chillicothe, O.—Junk Bros. are building an elvtr. here.

Walhonding, O.—The Farmers Grain Co. is installing new flour milling machinery.

Castalia, O.—The capital stock of the Castalia Elvtr. Co. will be increased from \$15,000 to \$25,000.

Maplewood, O.—I have moved from this place to Jackson Center.—J. M. Pence, J. M. Pence Grain Co.

Hayden, O.—I am rebuilding of concrete my office which burned two months ago.—Walter M. Latham.

Wapakoneta, O.—G. Ruck is now mgr. of the Wapakoneta Farmers Grain Co. He was formerly mgr. of the Home Mfg. Co.

Lorain, O.—The Mills Elvtr. Co. incorporated for \$10,000 by R. W. Mills, F. A. Stetson, W. E. Stetson, J. F. Guild and S. J. Leser.

Powhatan, O.—Citizens here are planning on forming a company to be capitalized at \$25,000 to take over the Powhatan Flour Mills.

Columbus, O.—The annual meeting of the Ohio Millers State Ass'n will be held in this city at the Deshler Hotel, Apr. 18 and 19.

Cleveland, O.—Officials of the Co-operative Union Elvtr. Co. are endeavoring to raise \$200,000 by sale of stock to keep the business going.

Dayton, O.—At a meeting of the Farmers Exchange Co. held here recently it was decided to erect an elvtr. as soon as \$40,000 worth of stock has been sold.

Waverly, O.—The Waverly Grain & Feed Co. incorporated with a capital stock of \$5,000 by B. Treber, J. W. Logan, A. M. Kalfs, L. W. Lorbach and K. Durham.

Scott, O.—C. M. Bayman, who sold his elvtr. at Mercer, has purchased the Richey Grain Co. elvtr. here. This plant is up-to-date and will be known as the Bayman Grain Co. I will manage the plant.—C. M. Bayman.

Weyer, (Sandusky p. o.) O.—At a recent meeting of stockholders of the Weyer Supply & Elvtr. Co., no definite solution to the financing problem of the company was reached.

Dawson, O.—I am now the sole owner of the business formerly known as Snow & Ginn, having bot out my partner Jan. 1. The name of the business is now C. H. Ginn.—C. H. Ginn.

Chatfield, O.—Geo. H. Schultz, formerly mgr. of the Buckland Equity Exchange, and one of the owners of the Detjen Grain Co. at Buckland, has become mgr. of the Chatfield Equity Exchange Co., succeeding H. W. Baumgartner.

Toledo, O.—We are closing out our office here, known as the Rice Grain Co. Geo. D. Woodman, who was in charge of our office, will go with H. W. DeVore & Co. and I will be at Metamora, as usual, in charge of the Metamora Elvtr. Co.—S. L. Rice, sec'y and mgr., Metamora Elvtr. Co.

CINCINNATI LETTER.

The H. E. Niemeyer Comm. Co. has added a hay shipping department to its business, which will be managed by Sherman J. Boss.

Robt. Rasch and Joseph Uptmoor, both well known in the grain trade, have opened an office in the Provident Bank Bldg. to deal in grain and feed.

Having purchased the interest of L. McMillen in the Gale-McMillen Co., the A. C. Gale Grain Co. has changed the name to their own, and the two companies will be operated as one.

Our new elvtr. was completed Feb. 1. H. J. Nimitz is supt. We manufacture scratch and chick feeds and molasses horse feeds. Located on the B. & O., Big 4, Penna., and N. & W. railroads.—Ubiko Milling Co.

OKLAHOMA

Tulsa, Okla.—I am now mgr. of the Oklahoma Grain Co. J. W. Binding was formerly mgr.—Earl Worl.

Tyrone, Okla.—I am the new mgr. of the Tyrone Equity Exchange. C. W. Mast was former mgr.—A. A. Albright.

Grove, Okla.—Fire destroyed the mill and elvtr. of Geo. Dawson here. It is believed to have been of incendiary origin.

Pawhuska, Okla.—The Harris Grain Co. is erecting a new brick building, 25x120 ft., one story high, to be used as a warehouse.

Enid, Okla.—V. L. Goltry has taken over the grain business of the late J. H. Shaw. He was for many years mgr. of the company.

Yukon, Okla.—The contract to furnish complete the new mill of the Yukon Milling & Grain Co. was awarded to Sprout, Waldron & Co.

Renfrow, Okla.—The Renfrow Wheat Growers Ass'n incorporated with a capital of \$15,000 by G. P. Schwertfeder, W. A. Parr and Fred Hybsha.

El Reno, Okla.—The El Reno Mill & Elvtr. Co. has been incorporated with a capital of \$300,000 by W. E. Humphrey, K. E. and G. E. Humphrey.

Custer City, Okla.—The Custer City Farmers Co-op. Exchange incorporated with a capital stock of \$25,000 by J. M. Porter, Jas. Nail and Chas. Peterson.

Blackwell, Okla.—The Blackwell Co-op. Ass'n has been incorporated with capital stock of \$25,000 by C. A. Guyer, M. L. Baldwin and E. Boesch of Kildare.

Deer Creek, Okla.—The Deer Creek Wheat Growers Ass'n has been incorporated with a capital stock of \$15,000 by O. L. Dorsett, G. M. Kretz and J. S. Deeter.

Ponca City, Okla.—The J. S. Hutchins Grain & Elvtr. Co. has sold its elvtr. to a wheat growers organization here, and will give possession to the new company June 1.

Kingfisher, Okla.—Jesse Baughman, pioneer grain and milling man in this section, died at the age of 76, Mar. 25. He was pres. of the Star Mill & Elvtr. Co. at Hennessey.

Blackwell, Okla.—Plans are nearly completed by the Kay County Wheat Growers Ass'n for the construction of a large elvtr. here. Members for the new enterprise are being solicited.

Shawnee, Okla.—The Central Oklahoma Milling Co. incorporated with a capital stock of \$100,000 by W. F. McManus of Oklahoma City and J. W. Critz and A. D. Hunsicker of this place.

Broken Arrow, Okla.—The Tulsa County Farmers Co-op. Co. plans to rebuild its elvtr. which was destroyed by fire a few months ago. The installation of a feed mill is also contemplated.

Enid, Okla.—T. C. Cones has improved his health by a long visit in California and will probably return home soon and re-engage in the grain business. B. U. Fuquay succeeded Mr. Cones as sec'y of the Board of Trade here.

Kingfisher, Okla.—The Farmers Elvtr. Co., which recently went into receiver's hands, is being reorganized. At a special meeting it was voted to raise the capital stock from \$26,000 to \$75,000. The addition of the mill to the elvtr. company some time ago is said to have been the cause of losses suffered.

OREGON

Portland, Ore.—The Kerr, Gifford & Co. incorporated with a capital of \$300,000 to deal in grain, seeds, etc., by Peter Kerr, N. A. Leach and Andrew Kerr.

Baker, Ore.—Geo. Marshall and Earl Hoge formed the Marshall Grain Co., incorporated for \$25,000 and bot the business of J. F. O'Bryant, prop. O'Bryant Grain Co., here. Mr. O'Bryant intends to go to Portland and engage in the grain and hay business there.

Portland, Ore.—Fire, Mar. 22, at 6:50 a. m., caused a loss of \$250,000 to the plant of the Portland Flouring Mills Co. here. The plant, known as the Olympic Cereal Mills, with its contents of 4,000 tons of grain and feed, is valued at \$1,500,000 by the Gray-Rosenbaum Co., which had an option on it. The fire was first noticed on the fifth floor, where it soon gained much headway and before long the upper floors were gutted. Water thrown on the flames flowed downward into the storage bins for grain, and as yet no estimate has been made as to the amount of damage done by it. Insurance fully covered the loss.—C.

PENNSYLVANIA

Pittsburgh, Pa.—We are retiring from business May 1.—R. D. Elwood & Co., by T. J. Elwood.

Newville, Pa.—The Newville Warehouse Co. is talking of building a small grain elvtr.—W. A. Nickles & Son, Shippensburg.

SOUTH DAKOTA

Ferney, S. D.—Work will begin at once on a new, up-to-date elvtr. for the Ferney Farmers Co-op. Elvtr. Co. T. E. Ibberson Co. will do the work.

Mellette, S. D.—The stockholders of the Farmers Elvtr. Co. furnished capital which enabled the company to again open its elvtr. after having been closed temporarily.

Waubay, S. D.—The report that Walter Darrington is mgr. of our company is incorrect, as V. L. Branum is mgr. and has been for four years. Also the report that the Farmers Elvtr. Co. had been taken over by us is incorrect, as we bot the elvtr. of the Farmers Elvtr. Co. over five years ago.—V. L. Branum, mgr. Waubay Equity Elvtr. Co.

SOUTHEAST

Atlanta, Ga.—We discontinued our office here April 1.—John T. Leonard & Sons, Charleston, S. C.

Mobile, Ala.—J. L. Suttle, grain and merchandise broker here for 25 years, gave up his work, due to ill health. He will rest for a long period.

Augusta, Ga.—A corporation is to be organized and capitalized between \$150,000 and \$200,000 here to build an elevator, flour, corn and feed mill, as well as a potato warehouse. Plans submitted to the farm bureau by W. M. Nixon were given unanimous endorsement.

TENNESSEE

Nashville, Tenn.—The property of the J. A. & O. L. Jones Mill & Elevator Co. was sold by auction to C. L. Liggett & Son for \$27,300.

Memphis, Tenn.—Robt. Sevier, negro operator of a feed store here, had been suspected for some time by other members of the trade to be receiving stolen grain and feed. Recently T. B. Jones & Co. missed 130 sacks of feed and Mr. Sevier was brot to court. A jury convicted him on evidence of 15 sacks, which was all that were found in his possession.

TEXAS

Pendleton, Tex.—Mail addressed to L. H. Carl has been returned marked "removed."

Bangs, Tex.—Mail addressed to N. P. Robertson has been returned marked "unclaimed."

San Antonio, Tex.—Mail addressed to the Fidelity Grain Co. has been returned "unclaimed."

Cleburne, Tex.—Mail addressed to the Raymond Grain Co. has been returned marked "unclaimed."

Santa Anna, Tex.—Mail addressed to M. J. Norrell has been returned marked "removed, left no address."

Dallas, Tex.—The new elevator of the Pearlstone Mill & Elevator Co. was completed April 1. It is a 200,000-bu. house.

Littlefield, Tex.—The Littlefield Grain Co., formerly the H. G. Tolbert Grain Co., has increased its capital stock from \$6,000 to \$12,000.

Tulia, Tex.—W. A. Porter of the Porter Grain Co. was accidentally killed in the engine room of the company's elevator. Mar. 27.

Lancaster, Tex.—We have not opened our elevator here, known as the Lancaster Elevator Co., the past season as crops do not justify it.—Doggett Grain Co., Dallas.

Dallas, Tex.—The W. L. Richeson Co. has opened an office here in the Cotton Exchange Bldg. W. J. Weber, formerly of the Galveston office of the company, is mgr.

El Paso, Tex.—The Southwestern Fuel Co. was succeeded by E. Sturgeon and H. G. Seibert in May, 1921, and went out of business June 5, 1921.—Walter S. Clayton.

Kings Mill (Ecla p. o.), Tex.—We are contemplating improvements on our elevator to the extent of \$800 before the new crop moves.—C. R. Holman, mgr. Ecla Grain Co.

Abernathy, Tex.—A. M. Medley, formerly in the grain business here, who has lived at Wilson for some time, has returned to this place and will again engage in the grain business.

Dallas, Tex.—The Blair Grain Co. is owned by R. W. Blair, but he has not been active here for a year or two. He operates several stations in West Texas.—Doggett Grain Co. (Mail addressed to the Blair Grain Co. here has been returned "unclaimed.")

UTAH

Kaysville, Utah.—The Kaysville Milling Co. held a meeting recently to consider changing their name to Kaysville Layton Milling Co. and to decide on the amount of their capitalization.

Logan, Utah.—J. B. Moench, grain dealer here, has filed a petition in bankruptcy, listing his assets at \$110 and liabilities at \$96,118. He claims the \$110 assets to be exempt, as it is invested in household goods and wearing apparel.

WISCONSIN

Antigo, Wis.—Bine & Co. incorporated for \$4,000 by N. Ginsberg, P. Bain and M. Ginsberg, to deal in grain, etc.

Biramwood, Wis.—I am adding a grist mill to the plant I recently took over here from the Dodge Hooker Mills Co. of Wausau.—Geo. L. Hooker.

Reedsburg, Wis.—The Reedsburg Farmers Co. incorporated to deal in farm produce. Capital \$30,000. Incorporators, Edw. Donahue, E. S. Clingham and E. O'Connor.

De Pere, Wis.—The Powell Mfg. Co. has taken over the John Dousman Mfg. Co. here. The mill has been overhauled and will start operations at once. C. P. Stein and Mr. Powell are interested.

Woodland, Wis.—The Woodland Lbr. & Grain Co. organized by E. E. Marquardt, H. R. Horn and James Burrow have taken over the plant of the Armour Grain Co. here. The company will be incorporated.

Milwaukee, Wis.—Geo. J. Cahill, formerly with the Ladish Milling Co., has opened an office of his own under the name of the Cahill Grain & Produce Co., with offices in the Chamber of Commerce Bldg.

Eau Claire, Wis.—We recently incorporated for \$1,000, but do not operate an elevator, nor do we intend to at present. Officers of the company are: W. C. Holbrook, pres.; C. P. Moses, vice-pres.; C. O. Lee, sec'y-treas., and C. H. Olson, mgr.—C. O. Lee, sec'y-treas., Eau Claire Co-op. Shipping Ass'n.

Milwaukee, Wis.—At the annual election of the Chamber of Commerce, held April 3, H. H. Peterson was elected pres.; A. R. Taylor, vice-pres.; A. R. Templeton, 2nd vice-pres.; H. A. Plumb, sec'y-treas. Directors are: K. R. Froedtert, L. Ross Fyfe and E. LaBudde. Board of Arbitration: Linus J. Beck, C. F. Coughlin and O. R. Sickert. Board of Appeals: A. L. H. Johnstone and Hugo Teweles.

WYOMING

Gillette, Wyo.—I have leased my elevator to Martin & Cassidy. The elevator at Moorcroft is operated by Peter Peterson.—A. R. Smith.

Farm Papers and the U. S. G. G. Meeting.

The reaction of the farm papers to the events of the annual meeting of the U. S. Grain Growers, Inc., is interesting to observe. Surely, here among the editors who had been favorable to the so-called marketing scheme and who had done so much to assist its formation, one might expect to find comment of an illuminating nature on the split that was disclosed by the meeting.

Under the heading, "Co-operating With a Steam Roller," the *Prairie Farmer* (Chicago) gave an accurate report of the convention.

Eliminating the narrative portions of the article, the opinions expressed were as follows:

A SORDID STORY.

A year ago we referred to the formation of the U. S. Grain Growers, Inc., as the signing of the farmers' Declaration of Independence. Today, after the first annual meeting, the farmers of the grain belt stand at Valley Forge, their ranks shot to pieces and the future of their organization uncertain.

Last Wednesday night the telegraph wires carried through the middle west the news of a serious split in the ranks of the U. S. Grain Growers at their first annual meeting at Chicago. * * *

At its best, this story is the blackest spot on the record of organized agriculture. It is an outstanding example of what not to do—of what happens when the personal ambitions of men are placed above the good of the organization. * * * The differences had root in disagreements on fundamental matters of policy, and ended in a determined fight for control of the organization. * * *

It quickly became apparent that the test of men was to be neither ability nor loyalty to the U. S. Grain Growers, but simply loyalty to Gustafson. * * *

A sordid story, isn't it? It is a sad task for a friend of true co-operation to have to write such a record. But the truth must be told. When selfishness and personal ambition become the biggest thing in a farmers' organization, they must be removed if the organization itself is to survive. There is no other way out.

Farm, Stock and Home, (Minneapolis):

Days Appear to be Numbered.

The affairs of the U. S. Grain Growers, Inc., are in a bad tangle. The new Board of Directors have been elected to do the bidding of the Gustafson-Myers-Thorne regime, but the minority refuse to accept the situation as final. The delegates from Illinois, North Dakota, Kansas, Oklahoma and Michigan gave out a report that they will market grain at the earliest possible moment and that if the U. S. Grain Growers organization cannot be returned to the democratic control of its members, these states will create their own marketing agency. * * *

The final outcome is very uncertain, but from the side lines it looks as though the days of the U. S. Grain Growers, Inc., are numbered.

The *Ohio Farmer* (Cleveland) had the following to say:

A Wide Open Split.

At the close of a four-day session beginning Mar. 21 in their Chicago offices, the first annual convention of the U. S. Grain Growers, Inc., resulted in a wide open split over factional differences. From the first tap of the gavel it was a political convention that would do justice to Chicago first ward politics in their balmy days, and in no wise a farmers' business meeting.

The *Orange Judd Farmer* (Chicago):

No "Co-operation" Evident.

The first annual meeting of the U. S. Grain Growers, Inc., developed a situation most disheartening to those who have hoped for a successful outcome of this great co-operative venture.

Where there should have been most earnest endeavor to surmount obstacles and solve real problems, there developed factionalism and personal controversy in a struggle for control. The "spirit of co-operation," whatever that means, certainly would have been shocked if it had been in attendance.

We point out that a year ago we advised our readers that we did not believe in the 5-year contract plan of signing members, and regarded it rather as a detriment than an aid. One year has demonstrated that it is a very expensive proposition, as the financial statement shows half a million dollars poured into that hole. * * *

The *Kansas Farmer and Mail & Breeze* (Topeka):

Majority Puts Its Program Over.

Much heated discussion and considerable differences of opinion were features of the meeting. * * * This developed into two rather distinct divisions, the minority including the delegates from North Dakota, Illinois, Oklahoma and Kansas. At no time, however, on any test vote, did the majority have any trouble in mobilizing enough votes to put its program over.

Selling Delivered Makes Shipper Liable for Damage in Transit.

The Granger Mercantile Co. contracted with J. F. Wieser & Co. for the shipment of a car of No. 3 corn for delivery at Granger, Tex. Wieser & Co. loaded a car of the required grade at Hico, Tex., but it got wet in transit and was transferred by the railroad into a different numbered car without the knowledge of seller or buyer.

The contract gave permission to inspect but the railroad company refused permission to inspect unless the Granger Mercantile Co. presented the B/L. To get the B/L buyer paid the draft, and unloaded the corn, and then discovered it was wet and moldy.

The Granger Mercantile Co. brot suit against sellers to recover damages amounting to the difference in the value of the corn contracted for and the corn delivered. In defense Wieser & Co. alleged that buyers had no authority to accept the car of corn as it was in a different car and was a different class of corn, and it did not appear that it was the same corn that had been shipped.

The County Court of Williamson County gave judgment for Granger Mercantile Co., and the Court of Civil Appeals, on appeal by Wieser & Co., affirmed the decision Feb. 8, 1922, holding that it was immaterial whether the corn was the same or not, as Wieser & Co. owed Granger a car of corn and not having delivered it as per contract, were liable. The court said:

If it was the same corn, but had deteriorated before its arrival at Granger, appellee was entitled to recover, as it did, the difference in the market value of the corn contracted for and that received. The shipment was to shipper's order, and the corn was the property of appellant until it arrived at Granger and was ready for delivery. Such being the case, the railway company was the agent of appellant for the delivery of the corn. It tendered the carload of corn in behalf of appellant as the corn shipped by appellant. There is nothing in the record to indicate that this was other than the corn shipped by appellant, except the change in the number of the car, and the fact that the corn had become wet and moldy in course of transportation.—237 S. W. Rep. 328.

AGREEMENT has been reached in the senate finance com'te on a duty of 30c on wheat. The present duty is 35c, and the house bill provides for 25c.

Conference of Corn Millers.

The American Corn Millers Federation held a called meeting at Chicago Apr. 3 with about 80 per cent of the country's capacity of degerminated corn products represented, specially to hear the report by Dr. J. A. LeClerc, trade commissioner of the U. S. Dept. of Commerce, on the prospects of increasing the export of corn milled products to Europe.

Pres. W. N. Adams of Arkadelphia, Ark., introducing Dr. Le Clerc, said:

Corn millers representing practically every section of the United States have been called together today to hear Mr. E. G. Montgomery, chief of the Foodstuffs Division of the Department of Commerce, and Dr. J. A. Le Clerc, who, as a special Trade Commissioner of the Department of Commerce, has just returned from Europe after a six months' study of the principal markets abroad in the interest of the products of Indian corn.

I firmly believe that Sec'y Hoover, through his capable chief of the Foodstuffs Division, Mr. E. G. Montgomery, established a record in Washington for prompt and efficient action in the aid of an American industry last fall.

Sec'y Hoover had told our secretary, Mr. T. M. Chivington, that he had planned certain changes of the Department of Commerce and that as soon as the needed legislation was passed he would be in a position to consider the needs of the corn milling industry. Soon after came the announcement of the establishment of a Foodstuffs Division with Mr. Montgomery in charge. The American Corn Millers Federation immediately sent General Asher Miner and our Sec'y to Washington. It was the last of September, I think, that these gentlemen called on Sec'y Hoover and Mr. Montgomery, and on October 15 a special trade representative of the Department of Commerce of our own selection, Dr. J. A. Le Clerc, the best man in the country for the job, was on his way to Europe. Getting a man off to Europe properly equipped for work of this character in two weeks' time is going some for a governmental department.

Dr. Le Clerc was for many years with the Bureau of Chemistry of the Dept. of Agriculture and was for five years chief chemist of the Miner-Hillard Milling Co., Wilkes-Barre, Pa. In part he said:

Europeans Eat Corn. Each year in this country we consume about 50 lbs. of corn per capita as a human food. The Italians, on the other hand, eat about 50% more than we do, or 76 pounds per capita. The Roumanians and the people of the other corn-growing countries, e.g., Hungary, Russia, Bulgaria, Jugo-Slavia, grow considerable quantities and consume large amounts of corn.

Countries Visited. Fourteen of the countries of Europe were visited, and conferences held with importers and bankers, large brewers and bakers, officials of relief and charitable organizations, of co-operative societies and of the various governments. In all about 150 men of prominence and of standing, representing these various lines of thought, were interviewed and to each of them the food value of corn flour and grits or the brewing value of the grits, or the adaptability of the corn flour as a part substitute for wheat flour in baking were explained. Furthermore, business and social connections have been formed with many of these European representatives who will be glad to assist in our endeavors to introduce corn milling products into Europe. Thus we see that the seed corn has been sown over a large part of Europe, and it only needs proper cultivation to bring forth a paying crop.

Unpromising Countries. Of the countries visited, France, Germany, Bulgaria and Italy may be considered as offering at the present time the least promise. Bulgaria's crops suffice for her needs; France and Italy have prohibitive tariffs on corn grits and corn flour, while Germany has certain custom regulations which prohibit altogether the importation of milled products without a special permit.

Promising Countries. On the other hand, it may be confidently expected that with a reasonable amount of propaganda large exportations of both corn grits and corn flour will result to such sections of Europe as Austria, Holland, Denmark, Czecho-Slovakia and Constantinople.

General Asher Miner of Wilkes-Barre, who spent three months abroad in the interests of the U. S. Maize Products Ass'n, made his report.

E. G. Montgomery, chief of the foodstuffs division, spoke extemporaneously, and told what the Commerce Department is prepared to do to help the corn miller in the development of markets for grits and corn flour abroad; that they would co-operate in the production of moving picture films and the distribution of booklets describing corn milled products, with recipes, in any reasonable way. He seemed to think that the amount of corn grits sent to Europe in connection with relief work should give us an excellent opportunity for the introduction of milled products, which will help in carrying out a big economic plan of increasing the use of corn as food all over the world.

The following day, Apr. 4, the meeting of the U. S. Maize Products Export Ass'n was held to consider means of taking advantage of the present situation and the work of the De-

partment of Commerce. Plans were considered for the formation of a corporation to operate under the Webb Law authorizing combinations for the sale of American products abroad. J. H. Genung, of New York, is pres., and T. M. Chivington, of Chicago, sec'y-treas. of the Export Ass'n.

Concrete Elevator at Fargo, N. Dak.

Many of the smaller milling plants are greatly handicapped by lack of proper handling and storage capacity for their grain. It is desirable that there be enough storage capacity to insure a grain supply in case of car shortage, also to be able to take advantage of favorable prices for grain or to secure just the grades and qualities to take care of their milling demand.

The Fargo Mill Co. has been very successful in marketing its flour the "Pride of Fargo" brand but has been handicapped in milling by inadequate facilities for storing grain. To remedy this the Hickok Construction Co. was commissioned to design and build a concrete elevator of 35,000 bu. capacity.

The layout consists of semicircular bins, separated by a rectangular area which contains the work floor at one foot above grade and is divided into bins above the work floor. The elevator is 22x36 ft. on the ground, the semicircular bins have a depth of 83 ft. The width of the building was determined by the available space between the tracks.

The elevator contains nine bins. Local grain is received over a 10 ton, 26 ft. scale located in the driveway, which is built of concrete and tile. The only wood used being in the scale frame and dump platform. The driveway is 14 ft. wide, with doors of the folding garage type. The driveway and work floor are well lighted by a skylight in the roof. The scale is fitted with a combination wagon and auto truck dump.

The wagon pit has a capacity of 200 bu. Grain may be elevated by either leg. On the opposite side of the house is a car pit of 250 bu. capacity. This pit is covered with water tight steel doors in two sections. When the section next the car is folded back a winged hopper comes into position. Grain is unloaded by an automatic car shovel and may be elevated by either leg.

Two sets of scales are provided in the cupola, a 1000 bu. per hour Richardson Automatic which weighs grain to the mill and a 300 bu. Fairbanks Hopper scale weighing grain into the bins from car and also for shipment. The automatic scale is located above the hopper scale so that both can be used simultaneously as a check.

There are two stands of steel elevator legs each having a capacity of 1500 bu. per hour. Each leg is driven by a 7½ H. P. G. E. motor, reducing speed by Link Belt Silent Chains enclosed in dust proof oil tight casings. The motors are located in a dust proof room constructed of cement plaster on metal lath.

A manlift provides ready access to the cupola. The distributors were especially designed for this elevator, all spouting is of steel. The Strong-Scott Mfg. Co. furnished the transmission machinery, steel legs and spouting. The cup belts are 5 ply Rubber belts.

On the work floor is a No. 60 Dual cleaner and a Carter Disc Separator. A 7½ H. P. G. E. motor drives the cleaners and car shovel. A 2 H. P. motor drives the pit conveyor and a 1½ H. P. motor the air compressor for the dump. This motor is automatically controlled by a G. E. Diaphragm Pressure Switch, which insures sufficient air pressure at all times.

Dust from the cleaner is blown to a dust collector located above a concrete and tile dust house.

All windows in the elevator are Fenestra sash glazed with wire glass.

While this elevator is of small capacity, it affords every facility needed for receiving grain and the first cleaning, with enough bins to keep the grades separate.



35,000-bu. Concrete Elevator of Fargo Mill Co., at Fargo, N. D.

Grain Carriers

THE LARGEST car order in several weeks was placed by the New York Central Apr. 5 when contracts for 19,000 cars of various kinds were given.

OPERATION of the New York State Barge Canal is to be resumed for the season Apr. 15, it was announced recently. This is the earliest date of opening in the canal's history.

RATES named in I. C. C. 42 have been restored by the Great Lakes Transit Corporation in a recent notice issued in anticipation of the opening of navigation for the season of 1922.

CHAIRMAN BEN W. HOOPER of the Railroad Labor Board said recently that the Board will not put itself in the position of trading wages for prospective or already revised reductions of rates, passenger or freight, or both.

THE NUMBER of cars loaded with revenue freight during the week ended Mar. 18 decreased 5,759, compared with the previous week. There was an increase, however, of 131,793 cars over the same week last year.

CHICAGO, ILL.—The Goodrich Transit Co. has bought the business of the Chicago, Racine & Milwaukee Steamship Line, together with that company's dock properties at Racine and the steamships Illinois and Pilgrim.

A PROTEST has been filed with the Interstate Commerce Commission by the Nashville Grain Exchange against the proposed advance in rates on grain and grain products from Ohio and Mississippi River Crossings to Nashville.

FOUR steamers left the Buffalo harbor Apr. 3, formally opening the lake traffic season. All will go to Lake Erie ports to take cargoes of coal for upper lake ports. Considerable ice was encountered, but the boats made good progress.

LAKE and rail rates have been reestablished by the Grand Trunk Railway. Rates from New York and New England became effective Mar. 20, and eastbound rates on Apr. 1. The company will handle the traffic via Milwaukee, Wis., the same as last year.

FREIGHT rate reductions will be made, in the opinion of C. H. Markham, pres. of the Illinois Central, he stated in a speech delivered at Freeport, Ill., Apr. 6, but the reductions should not be made until traffic has increased enough to warrant the cuts.

NEW differential rates on freight traffic between Chicago and seaboard cities via rail and water routes have been announced by the Great Lakes Transit Corporation. Other differential carriers state their rates are approximately the same and in some cases cheaper.

THE RESIGNATION of Albert Phillips, labor member of the Railroad Labor Board, may mean a change in almost half the membership of the Board. The terms of G. W. W. Hanger, public representative; A. O. Wharton, labor member; and J. H. Elliott, representing the railroads expired Apr. 1.

WORKING CONDITIONS for stevedores, longshoremen and grain trimmers at the port of Baltimore will be the same as now in force during the 6 months beginning Apr. 1, it is provided in agreements recently signed by the Grain Trimmers Union and other interested organizations. Grain trimmers receive 85c per hour.

THE PETITION of the Transportation Dep't of the Kansas City Board of Trade, asking for suspension of the cancellation of transit privileges by the Rock Island Railroad at Kansas City on grain from Kansas, Nebraska and Colorado points and destined to Galveston and Texas City for export has been denied by the Interstate Commerce Commission. The privilege was, therefore, discontinued as of Mar. 20.

"FALLACIES of the St. Lawrence Waterway Scheme" is the title of a leaflet issued as Bulletin No. 4 by the American Institute of Business, alleging that the St. Lawrence already is sufficiently canalized and that no improvements can be made that will effect the saving in grain rates promised.

THE Interstate Commerce Commission on Mar. 29 vacated an earlier order suspending proposed reductions in proportional class and commodity rates from Chicago and related points to south Atlantic and Gulf ports for application on traffic destined to the Pacific coast via the Panama Canal. The vacation became effective Apr. 1.

AN EMBARGO has been placed by the Canadian National Railroad against shipments of grain to Ft. William and Port Arthur. There is said to be 30,000,000 bus. of wheat at the two points, with a string of loaded grain cars from Winnipeg to Ft. William. Much of this grain is understood to be sold, ready to move at the opening of navigation.

A REPORT of the Interstate Commerce Commission showed that on Jan. 31 the percentage of bad order cars in the various regions varied from 8.3% to 20.1%. Railroads consider their rolling stock in normal repair when 7% or less of the cars are listed as in need of repairs, and the higher figures shown in the report would seem to indicate an unusually high percentage to be in bad order.

MOST of the talk about overcapitalization of the railroads is the wildest kind of exaggeration, is the opinion expressed recently by J. E. Gorman, pres. of the Rock Island. He said, also, there is no doubt that rates must be further reduced, but this must come through reduced labor and operating costs, and when these reductions are made they will bear little relation to the valuation of the properties required to move the traffic.

THE STEAMER Monmouth, owned by the U. S. Shipping Board, recently began leaking while loading grain for export at the Western Maryland Elevator, Baltimore. It was found that one of the water pipes was leaking into a hold, and it was necessary to unload 10,500 bus. of barley to make the needed repairs. This grain had to be dried before it could be reloaded. A few months ago a similar accident occurred to another steamer while loading at the same port.

THE DECISION in which the Interstate Commerce Commission held that railroads should not let repair work to outside shops at costs higher than they could do it in their own shops was not a unanimous opinion. Six members of the Commission were included in the majority, while five opposed the decision. The Pennsylvania, one of the carriers affected, claimed it had to farm out the work because of the condition of its motive power at the end of federal control.

A HEARING is being held Apr. 10 at Chicago by the Interstate Commerce Commission on the petition of the railroads asking that Illinois territory, embracing the northwest part of Illinois and part of southern Wisconsin, be eliminated from western territory so far as the western grain rate reduction case is concerned. At the same time the petition of the Illinois Commerce Commission, asking that all of Illinois be included in western territory, will be heard.

SUBMITTING figures to show that only 2% more traffic was handled by United States railroads in 1918 under federal control than in 1917 without the assistance of the Railroad Administration, Daniel Willard, pres. of the B. & O., testifying before the senate interstate commerce com'te, refuted charges previously made before the com'te by William G. McAdoo, former director general of railroads, to the effect that the roads had broken down before being placed under government control. Mr. Willard's figures showed that in 1917 the carriers handled 430,000,000,000 ton miles and 440,000,000,000 ton miles in 1918.

IDLE freight cars on all railroads now total about 400,000, including those in good condition and those in bad order. The highest number of idle cars was reached Apr. 7, 1921, when the figure was 618,007.

BREAKING of seals on railroad cars in interstate commerce will remain a felony under the amendment introduced by Volstead of Minnesota as H. R. 10768, making the B/L prima facie evidence of the interstate character of the shipment.

A PROPORTIONAL rate published as a flat rate by the M. & St. L., and effective at Kansas City, was cancelled before it became operative. It would have permitted some grain in store which originated under old rates to move at reduced rates now in effect.

EFFECTIVE Apr. 24, the Santa Fe will absorb inbound and outbound switching charges on grain from Kansas City, provided the traffic is destined to competitive points. The cross town absorption will only be made when the haul from Kansas City via the Santa Fe is 100 miles or more.

A CARGO which included 85,600 bus. of mixed corn in bulk was recently taken from Mobile, Ala., by an American steamer bound for Antwerp. It is the second largest shipment of grain from the port in recent weeks, and Mobile business men are active in a campaign to build up the grain export business thru their city.

A HEARING for disputes involving the working rules for engineers and firemen on all railroads has been set by the Railroad Labor Board to follow the present wage hearing, which is expected to end by Apr. 15. This is said, in effect, to confirm the reported split between engineers and firemen and the conductors' and trainmen's brotherhoods.

HOLDING that it depends upon the facts in each case whether reparation should be awarded on the same basis in respect of transportation during federal control before and after June 25, 1918, the Interstate Commerce Commission recently decided that no occasion appears for reopening any of the cases asking for reparation which have been pressed upon its attention.

REDUCTIONS in lake and rail freight rates on grain and grain products have been made by the Canadian Pacific. The decrease is 5½c per cwt. on grain for domestic consumption and 1c per cwt. for export. The new rates are applicable at the Head of the Lakes, at points in eastern Canada and the eastern United States. The export reduction becomes effective Apr. 20, the domestic, Apr. 29.

THE RATES charged on shipments of flour and grain products milled at Buhler, Kan., from wheat originating in Oklahoma and Kansas and shipped to eastern points were found applicable and not unreasonable in a decision rendered by the Interstate Commerce Commission in the complaint of the Buhler Mill & Elevator Co., Buhler, Kan., against the Frisco Railroad. The shipments in question moved between Sept. 1919 and Jan. 1920.

Another Corn Pest.

A boring caterpillar, related to the corn stalk borer of the southeastern portion of the United States, is reported by the Bureau of Entomology of the U. S. Dep't of Agriculture to have made its appearance in southern Texas and New Mexico. It is identified as *Diatraea lineolata Walker*, and is believed to be moving northward from Mexico, where it was present in large numbers and quite injurious last year.

Full grown caterpillars hibernate in corn stubble, underground, and at least two generations occur annually in the Big Bend district of Texas.

Only a little is known about the pest, but it is feared that it may become a serious menace to crops of corn in the sections where it thrives.

Changes in Rates

As shown by tariffs recently filed with the Interstate Commerce Com'n the carriers have made the following changes in rates:

C. & A. in Sup. 3 to 1629-C names minimum carload weights on grain products from stations in Ill. to Cairo, Ill., and Evansville, Ind., proper or when destined beyond, effective Apr. 1.

C. & E. I. in Sup. 16 to 6639-D provides rules governing milling and malting in transit privileges on grain and grain products at stations on its lines, effective May 1.

C. & E. I. in Sup. 2 to 625 names joint and proportional rates on grain and grain products from stations on its lines to points in Ala., Ark., Fla., Ky., La., Miss. and Tenn., effective May 1.

C. & E. I. in Sup. 1 to 625 names joint and proportional rates on grain and grain products from stations on its line to points in Ala., Ark., Fla., Ky., La., Miss. and Tenn., effective Apr. 1.

C. F. Ass'n in Sup. 36 to 245 names local, joint and proportional rates on grain, grain products and by products from points in Ill., Ind., Ia., Ky., Mich., Mo., N. Y., Ohio, Pa., W. Va., Wis., to certain points in Canada, effective Apr. 15.

C. I. & L. in 520-A cancels 520 and names local, joint, proportional and reshipping rates on grain, grain products and by products from stations on its lines to points in Ill., Ind., Ia., Ky., Mich., Mo., N. Y., Ohio, Pa., W. Va., and Wis., effective May 1.

C. R. I. & P. in Sup. 11 to 27537-F names joint and proportional rates on grain, grain products, seeds, hay and broom corn from stations on its lines in Ill., Ia., Kan., Minn., Mo., and Neb., to stations in Ill., Ind., Ky., Mich., N. Y., Ohio and Pa., effective May 10.

A. T. & S. F. and associated lines in Sup. 5 to 5655-A-1 names joint proportional rates on grain, grain products and seeds from points in Mo., Kan., Okla., N. M., Tex., also Superior, Neb., to Galveston, Houston, Texas City, Beaumont, Orange and Port Arthur, Tex., when for export, effective Apr. 20.

C. & A. in Sup. 4 to 1614-F names joint and proportional rates on grain from stations in Ill., on its lines, and C. & I. M. to Aurora, Cairo, Ill., Cincinnati, O., Evansville, Indianapolis, Jeffersonville, Lawrenceburg, New Albany, Seymour, Ind., Louisville, Owensboro, Ky., and points in Ill. on M. & O. and W. C. & W., effective Apr. 1.

C. & A. in Sup. 23 to 1596-E postpones until July 3, 1922, the effective date of Sup. 21 applying on grain and grain products from stations in Ill. on its lines, C. & I. M. and C. & N. W., also from Louisiana, Mo., to Memphis, Tenn., New Orleans, La., Helena, Ark., and points in Ala., Fla., La., Miss. and Tenn.; also to Key West, Fla., Mobile, Ala., New Orleans, La., Pensacola, Fla., Port Chalmette, La., and Westwego, La.

C. F. Ass'n in Sup. 13 to 245-A names local, joint and proportional rates on grain, grain products and by products from points in Ill., Ind., Ia., Ky., Mich., Mo., N. Y., Ohio, Pa., W. Va., Wis., to Albany, Baltimore, Boston, New York, Philadelphia, Rochester, Syracuse, Utica, other eastern points in U. S., also basis for rates to U. S. and Canadian ports for export, effective Apr. 15.

C. & A. in Sup. 22 names joint and proportional rates on grain and grain products from stations in Ill. on its lines and C. & I. M. and C. & N. W., also from Louisiana, Mo., to Memphis, Tenn., New Orleans, La., Helena, Ark., and points in Ala., Ark., Fla., La., Miss., Tenn., also to Key West, Fla., Mobile, Ala., New Orleans, Port Chalmette, Westwego, La., for export, effective Apr. 1. Tariff 1596-B.

C. & A. in Sup. 6 to 1596-F names joint and proportional rates on grain and grain products from stations in Ill., on its lines, C. & I. M. and C. & N. W., also from Louisiana, Mo., to Memphis, Tenn., New Orleans, La., Helena, Ark., and points in Ala., Fla., La., Miss. and Tenn., also to Key West, Fla., Mobile, Ala., New Orleans, La., Pensacola, Fla., Port Chalmette, La., and Westwego, La., for export, effective Apr. 1.

Ill. Central in Sup. 1 to 601-G names local, joint and proportional rates, domestic and export, on grain, grain products, hay and seeds between stations in Ia., Minn., S. D., on its lines and on C. R. & I. C. Ry., Ft. D. D. M. &

S. R. R., G. N. Ry., W. C. F. & N. Ry., and Chicago, Peoria, Ill., St. Louis, Mo., Milwaukee, Wis., Minneapolis, Minn., Omaha, Neb., Ohio River Crossings and other stations in Ill., Ind., Ia., Minn., Ohio, S. D., Wis., effective Apr. 1.

C. & A. in Sup. 1574-F names joint and proportional rates on grain, grain products, seeds, hay and straw from Kansas City, Mo., when originating beyond, also Blue Springs, Fulton, Gilliam, Glasgow, Higginsville, Marshall, Mayview, Mexico, Odessa and Slater, Mo., to Cairo, Ill., proper or when for beyond, Evansville, Ind., when for beyond, and Cincinnati, O., Jeffersonville, Ind., and Louisville, Ky., when for southeastern or Carolina territories, also Miss. Valley Points and stations in Ala., La., Miss., Key West, Fla., when for export, effective Apr. 16.

C. R. I. & P. in 29329-E cancels 29329-D and names local joint and proportional rates on grain, grain products and seeds between Albright, Omaha, South Omaha, Neb., Armourdale (Kansas City), Atchison, Leavenworth, Kan., Council Bluffs, Ia., Kansas City, St. Joseph, Sugar Creek, Mo., stations in Ia., Kan., Mo., Neb., on C. R. I. & P., C. B. & Q., M. P., and stations in Ill., Ind., Ia., Minn., Mo., S. D., Wis., effective May 1.

C. R. I. & P. in Sup. 25 to 28675-D names local, joint and proportional rates on grain, grain products, broom corn, alfalfa cake and meal, linseed cake and meal and seeds between Chicago, Peoria, Rock Island, Ill., Council Bluffs, Ia., Kansas City, St. Joseph, St. Louis, Mo., Minneapolis, St. Paul, Minn., Omaha, Neb., also stations in Colo., Ill., Ia., Kan., Minn., Mo., Neb., Okla., and S. D., and stations in Colo., Kan., Neb., N. M., Okla. and Texhoma, Tex., effective May 1.

C. R. I. & P. in Sup. 25 to 22000-F names local, joint and proportional rates on grain, grain products and seeds between Chicago, Moline, Peoria, Rock Island, Ill., Burlington, Clinton, Davenport, Keokuk, Muscatine, Ia., Minneapolis, Minneapolis Transfer, St. Paul, Minn., and stations on its lines and connections in Ill., Ia., Minn., Mo., and S. D., including Kansas City, St. Joseph, Mo., Council Bluffs, Ia., Armourdale (Kansas City), Atchison, Leavenworth, Kan., Albright, Omaha, South Omaha, Neb., effective Apr. 27.

Oats for Russian Relief.

The American Com'ite for Russian Famine Relief, with headquarters at Chicago, has announced what it calls the "Iowa" plan, intended to provide rolled oats for the starving in Russia, as follows:

Ask Iowa farmers for an outright donation of 500,000 bushels of oats.

Spend half of all funds collected in Iowa for the purchase of additional oats. The relief organization expects to raise \$250,000 in Iowa.

All of the oats donated and purchased will be converted into oatmeal, which will be shipped to Russia for distribution in the Volga valley by the Quakers.

According to officers of the American Com'ite for Russian Famine Relief, a reduction in the visible supply of oats of one million bushels in one state alone can be counted upon to advance the market price of oats and thereby benefit American farmers. Oats are now worth about 20 cents a bushel on the farm.

Lumber from Waste Plant Materials.

Boards 12 ft. wide and 900 feet long have been produced in a plant recently erected at New Orleans, La., to utilize the waste from sugar mills known as bagasse.

The bagasse is what is left of the sugar cane after the sweet juice has been squeezed out by passing thru heavy rollers. It is comparable to the constalks of more northern climes.

To make it into lumber the bagasse is cooked, treated with chemicals, beaten into a pulp, and formed into boards under pressure, which when dried are ready for use. This lumber is light, a perfect non-conductor of heat and resists exposure to weather the same as wood. Dr. Treadway B. Monroe, who built the factory, says one ton of bagasse yields 3,000 ft. of lumber, and the cane fields of Louisiana alone will yield over 750,000,000 feet a year.

Salina Board of Trade Asks Investigation of Telephone Rates.

The members of the Salina, Kan., Board of Trade have long resented the exorbitant charges and the onerous regulations of the telephone companies and recently they filed a protest with the Kansas Public Utility Commission. In the following resolution they ask for a thorough investigation and no doubt every grain handler of the state will support the demand.

TELEPHONE RATES EXORBITANT AND UNREASONABLE.

RESOLVED, That we, the committee appointed by the Salina Board of Trade of Salina, Kansas, believing that the telephone is a public necessity and that a public service corporation is entitled to just and reasonable compensation for services performed, do protest the present rates and fixed charges put into effect during the war period as emergency measures, that such emergencies have passed and that such rates are unjust, unreasonable and exorbitant; and be it further

RESOLVED, That the present charge assessed under the term "person to person" calls, for which approximately one-fourth higher rate is charged, is unreasonable and exorbitant and should be eliminated; and be it further

RESOLVED, That on all calls a subscriber calling is entitled, without further additional charge, to be connected with some one qualified or privileged to talk at the station called and said call not to be completed until such service is rendered by the telephone company; and be it further

RESOLVED, That the present charge made on what is known as the "report" call, and which is approximately one-fourth of the "station to station" rate, should be eliminated and such service should be performed by the telephone company free of charge; and be it further

RESOLVED, That the present time limit of three minutes on all long distance calls in Kansas is unsatisfactory and inadequate and the charge therefore is unreasonable and that not less than a five minute time be given, and that either the present rates be reduced for such calls or, as before stated, the limit of time be extended to not less than five minutes; and

WHEREAS, All, or nearly all, public service corporations have recognized the fact that war time rates under present conditions are unreasonable and exorbitant and that all, or nearly all, such public service corporations have voluntarily reduced their charges, that the Public Utility Commission of Kansas be requested to investigate thoroughly the compensation received by the telephone companies operating in Kansas to the end that a readjustment be made to comply with present day conditions.

Committee: I. A. Fribble, George Noll, Paul Bossemeyer, E. C. Wyatt, A. D. Richter.

THE HOUSE com'ite on ways and means has reported the senate resolution authorizing the extension for not more than 25 years of the time within which Austria is to pay the principal and interest of the debt incurred for the purchase of flour from the U. S. Grain Corporation. It would be required, however, that other nations which are creditors of Austria shall take similar action with reference to their claims.

E. H. Moreland Chosen Tri-State Secretary.

At a special meeting of the directors of the Tri-State Country Grain Shippers Ass'n held Feb. 22 at Minneapolis Minn., E. H. Moreland was elected sec'y.

Mr. Moreland has removed the office of the Ass'n from Minneapolis to Luverne, Minn., where he is sec'y of the Tri-State Mutual Grain Dealers Fire Ins. Co., a position he has held since 1906.

His connection with the grain business began in 1888 as buyer in a flat house, and in 1895 he began work for E. A. Brown of Luverne, one of the best known of the individual operators of line houses, as auditor. This gave him a valuable experience. He resigned as auditor in 1911, however, to give his entire time to the insurance company's management. In 1917 he purchased a half interest in the J. P. Coffey Grain Co., of Luverne, together with J. C. Mannigel, changing the name to Mannigel-Moreland Grain Co. Having disposed of his stock in this company in March, 1921, to Wm. Rathjen, Mr. Moreland is now giving all of his time to the insurance and association work.

A Grain Weighing Scale.

Weight is all important in the handling of grain, and it is essential that the scales used be so designed and so installed that the results given will reflect the true quantity of grain, no more and no less.

A scale built especially for use in grain elevators is the Bird Scale, manufactured by the Strong-Scott Mfg. Co., and shown in the engravings reproduced herewith.

This scale combines some of the features of an automatic scale with other principles to give a machine which performs automatically those operations that will permit of such operation while still assuring the actual hand weights desired by weighing dept's and other organizations. The hopper of the scale is installed in the cupola and the scale beam is in the lower portion of the plant where it is readily accessible to the workman. The two are connected by means of a long rod. The entire scale is suspended from the building so it is not influenced by any settlement or swaying that may take place. This eliminates objection to the long connecting rod because the scale aligns itself with any out of level conditions that may occur. It is also claimed for this scale that temperature cannot affect the proper relation of the weighing beam with the main scale lever because any expansion or contraction in the rod will be offset by a similar change in the length of the pipe protecting it, thus serving only to lower or raise slightly the beam box. This box hangs from the main scale lever.

The system of installation and operation of the Bird Scale is such that the workman is permitted to go about his other tasks while cars are being loaded. The scale gives an alarm when the hopper is filled to the predetermined weight point and the flow of grain is automatically cut off. If the operator is busy and cannot immediately attend to the scale the system automatically takes care of the grain still being elevated. This is accomplished by a garner provided above the scale to hold the grain that will be elevated in 3 to 5 minutes. If this garner becomes filled before the scale is discharged an overflow outlet or

bypass conducts the grain back to the bin from which it came or to a receiving pit.

The scale weighs 3,000 lbs. of corn or wheat at each draft, only a comparatively few such drafts being required to load an ordinary car. As the operator must give some attention to the loading of a car, and as the scale beam is located in a convenient place, there is no more inconvenience in operating this scale than in any other weighing system that receives the care it deserves.

One of the accompanying engravings shows the scale stripped of the operating and recording mechanism, thus making its principle clear. The other engraving shows the weighing and recording beam. The recording is done by means of a type registering device, and it is so designed that whenever the scale is discharged the printing bar is pressed down on the ticket, thus printing the figures in triplicate. When the scale is emptied the discharge gate closes automatically and the ticket is carried forward to the space for the next draft.

In weighing grain thru this scale, the ticket is placed in the printing shelf and the scale is balanced. The main poise is then set for the desired weight of draft and the filling gate is opened to let grain into the hopper. When the hopper has received the weight called for the beam rises and as it does so the filling gate automatically closes. The filling lever comes down, notifying the operator. The dribble, or grain in suspension at the time of the shut off, is then weighed on the fractional beam and the scale discharged by lifting the discharge lever. The latter action of the operator serves to record the draft automatically. The scale empties in 4 or 5 seconds and the discharge gate closes, thus setting the scale for another draft.

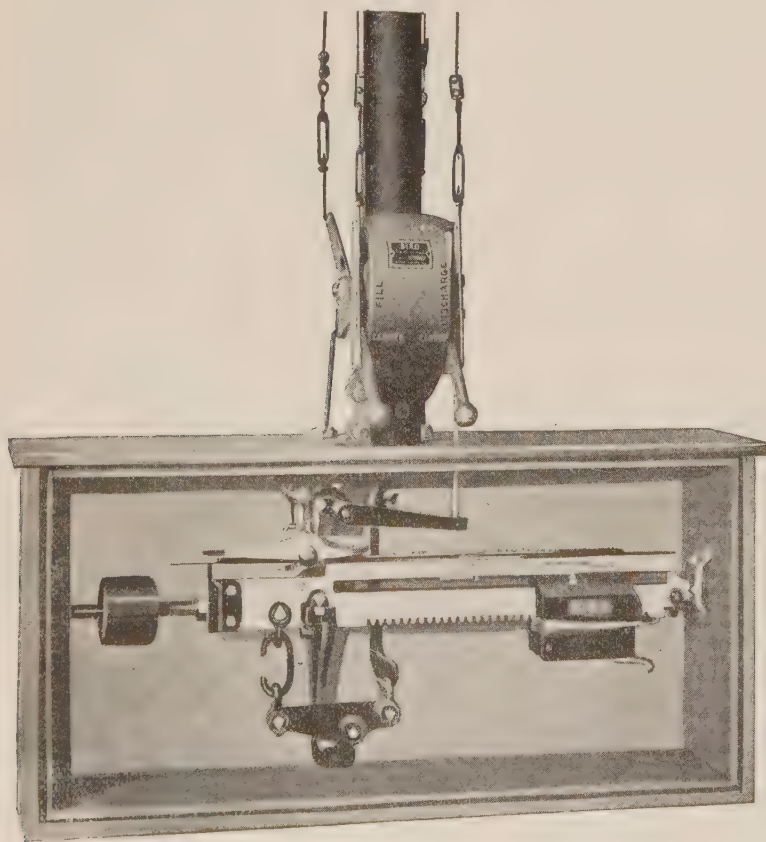
The discharge gate is made with an offset lip to prevent the picking up of grain. As long as the grain is running into the scale the discharge gate cannot be opened, and the filling gate must be completely closed before the discharge gate can be opened. Likewise, the filling gate cannot be opened while the discharge gate is open. This guards against grain

going thru the scale without being recorded, while the automatic recording feature is described as making it impossible for the operator to record a single draft twice.

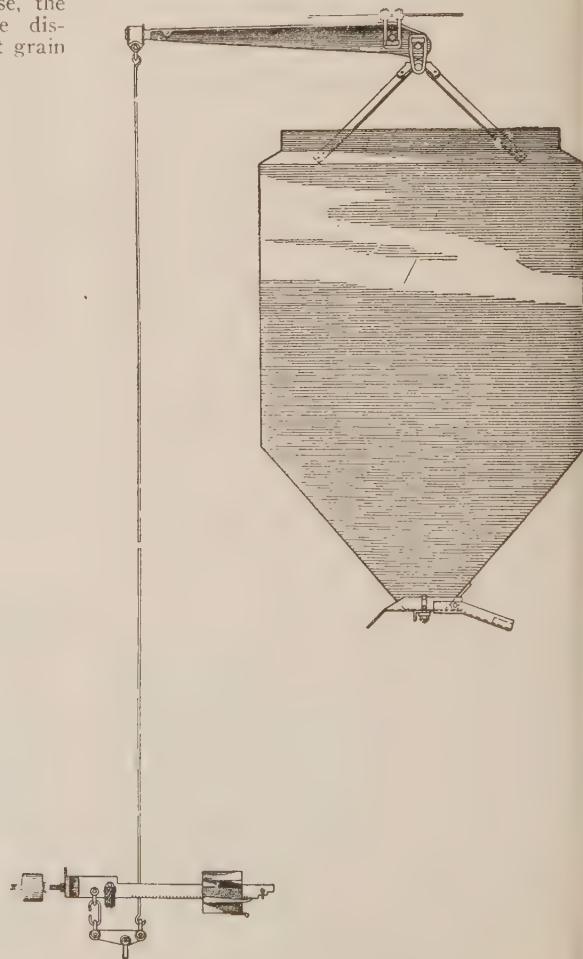
This scale is larger, and requires more space, than smaller automatic scales, but in the installation it is connected directly with the elevator head, taking the grain thru a valve in the head. This valve is operated manually from the work floor. The bottom of the hopper is thus brought down only 16 ft. from the top of the elevator head.

IT IS REMARKABLE how firmly the idea of ultimate scarcity has taken hold of the speculative minds of the nation. Buyers, and their name is legion, hold to their speculative purchases tenaciously, thoroughly convinced that a wheat famine will one day appear, while even those who are skeptical lack the courage of their convictions, and while they may be courageous enough to sell a little wheat short, they run to cover like frightened rabbits at the least sign of strength in the market. Last fall, when the big break was underway there were speculative longs in the market who bought May wheat around \$1.40, and carried it all the way down to \$1.02½, and back again, and there are many longs in the market to-day who would doubtless do the same thing. Ah, well, each one must act according to his own light, must solve his own problems and act for his own best interest according to the dictates of his own wisdom or foolishness, but it does seem a pity that in the present grain market situation, so much effort should be wasted, so much confidence shattered, and so many beautiful theories of scarcity, high prices, and prosperity upset.—Hulburd, Warren & Chandler.

A SURPLUS of 100,000 metric tons of wheat, 30,000 tons of oats and 10,000 tons of corn is available for export from Serbia. Much of the barley crop also has been bought for export.



Detail of Weighing and Recording Beam of Bird Scale.



Principles of Installation of Bird Scale.

Supply Trade

Sidney, O.—A meeting of the creditors of the Philip Smith Mfg. Co. will be held in the office of the Referee in Bankruptcy, D. Oldham, at 10 o'clock a. m. the 15th of April.

Chicago, Ill.—F. Ito of the Bureau of Agriculture, Dept. of Agriculture and Commerce, Tokyo, Japan, after a thoro study of American grain handling facilities, will return to Japan soon, where consideration will be given to the construction of bulk handling elevators.

Sydney, N. S. W.—The five automatic scales used in the Sydney Terminal Elevator were manufactured by W. & T. Avery, Ltd., Birmingham, Eng., instead of by the Fairbanks Co., as stated in the article descriptive of this elevator which appeared in the Grain Dealers Journal for Dec. 25.—The Australasian Scale Co., Ltd.

Cincinnati, O.—On Mar. 30 the grand jury indicted the Cincinnati Purchasing Co. on a charge of violating the anti-trust law. Restraint of trade and conspiracy to control the price of cement are charged. The prosecuting attorney recently filed a civil suit against the company, asking for forfeiture of its corporate charter.

Providence, R. I.—Henry A. Carpenter, member of the Board of Directors, manager of foundries, manager of the Auburn Plant and Dept. of Publicity and Promotion of the Grinnell Co., Inc., and General Fire Extinguisher Co., died Jan. 29. Mr. Carpenter for many years played an important part in the technical advancement of the foundry industry.

Sidney, O.—William Jaffe, pres., A. J. Hess, v.-pres. and sec'y, and J. G. Troester, treas. and mgr., comprise the new company known as the Sidney Grain Machinery Co., which has recently taken over the entire plant and all the assets of the Philip Smith Mfg. Co., mfrs. of the Sidney Line of grain handling machinery. Mr. Troester, the manager of the newly organized company, was identified with the Philip Smith Mfg. Co. for many years, both in the manufacturing end and in the management of the business.

Ft. Smith, Ark.—The Gruendler Patent Crusher & Pulverizer Co. of St. Louis has filed suit in the circuit court against the Western Grain Co. for \$1,261.42, and asks that a lien be declared against a screening grinder and its appurtenances. It is alleged the grinder and other machinery were sold the grain company in August, 1920, \$1,000 to be paid down and the remainder within ten months, but that the defendant has paid only \$2,700. It is further alleged that the defendant was to give a chattel mortgage on the machinery, but that altho the mortgage has been presented often the defendant has refused to execute it.

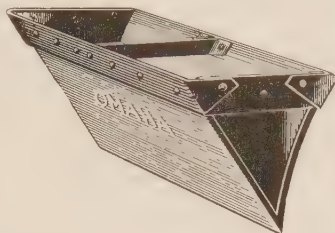
Passaic, N. J.—Two large orders have just been placed with the Richardson Scale Co. for the Union of South Africa. The large terminal elevators being erected by the South African Government at Capetown and Durban and the twenty-two interior country elevators are to be fitted with Richardson Grain Scales for weighing grain to cars and ships. Five Richardson Terminal Elevator Scales, each of a unit hopper capacity of 3 tons and an hourly capacity of 250 tons of wheat, corn and oats, are to be installed at the Durban Terminal. Three others of a like capacity will go to Capetown. Twenty-two Richardson Automatic Sacking Scales have also been ordered. These are to be used at the terminals at Durban and Capetown and in the interior or country elevators.

Silver Creek, N. Y.—The S. Howes Co. has received cable advices that its bid for the grain cleaning machinery, dust collectors and packers which will be required for the two terminal elevators to be erected at the Ports of Durban and Capetown by the Railways & Harbors Administration of the Union of South Africa was approved. For the Durban Terminal there will be 3 steel-covered compound elevator separators capable of handling 1,500 bus. of corn or 2,000 bus. of wheat hourly; a steel-covered four-sieve special separator for handling screenings, equivalent in size to a standard 1,000-bushel machine. There will also be a 600-bus. per hour conical corn scourer of the armored type; a steel-covered Iron King automatic dust packer and cyclone dust collectors for all the cleaning machines. For the Capetown Elevator there will be 3 compound elevator separators of the

steel-covered type, a four-sieve special screenings separator; this, too, will be armored, as will also be the conical corn scourer.

The Hall Special Leg.

The Hall Special Leg as designed by the Hall Distributor Co. is claimed to be a unit of itself, or a complete device, or machine, composed throughout of "special" parts. Among these parts the designers make a



The "Omaha" Elevator Bucket.

special cup which they call the "Omaha" which is illustrated herewith. It seems to be different from any other cup made in almost every line of its design, and to that extent is an innovation.

First: Its back is curved to fit the surface of the head pulley which pulley has a special diameter and speed for the special leg of which it is a part.

Second: The front is a straight line corresponding to the exact line of traverse of the grain as it leaves the cup traveling at the special speed designed.

Third: There is not a square inch of metal in the cup that is not needed to hold its cargo of grain.

The designers claim in view of its design, that this cup holds and uniformly ascends (in Hall Special legs) with more grain per square inch of metal in its construction than any other cup, and discharges every kernel without backlegging.

In view of the fact that in the Hall Special Leg these cups are placed on the belt close together, leaving no space between them, and as every cup automatically ascends absolutely full, they make the astounding claim and guarantee these claims in every contract, that by this combination with other elements the Hall Special elevates and discharges double the amount of grain into bins of any other leg of equal dimensions.

SUCCESSFUL crops of winter wheat were grown in only 25% of the trials conducted on 82 North Dakota demonstration farms from 1910 to 1914, inc. Experiments in the eastern part of the state were almost uniformly failures, while in the western part comparative yields show winter wheat to be only about one-half as productive as spring wheat.

A Bear but Sorry for It.

We wish that we might feel bullish at this time; we wish that we might express the opinion that prices were to ascend, for the sensations of a bull are so much more gratifying than those of a bear. A bull takes credit to himself, receives credit from others, and really believes that he deserves credit for aiding the farmer, and through aiding the farmer that he is helping to bring prosperity to the entire country; but the bear is an outcast, hated and despised. He slinks away from the companionship of others and takes no joy in the companionship of himself. It is an awful thing to be a bear, and yet what can one do in a situation like this?

If we have grown too pessimistic do not blame us; rather blame the agricultural department at Washington, which with its asinine statistics led us, along with the rest of the world, to believe that wheat starvation was merely a matter of weeks, when as a matter of fact supplies of wheat were ample for all purposes.—L. L. Winters.

ELLIS DRIERS

XX

This company has never been content to completely standardize on its grain driers. To completely standardize on your equipment means you are content to let it ride on the tide of popular approval, and when a manufacturer reaches that point in the history of his business he is properly due for a fall. That is why we are never content to standardize our machines to the point which allows no change, believing that nothing is so good that it can't be made better.

It is this policy which has placed the Ellis Drier in an unassailable position among the grain and milling trade and it is a position which we intend to maintain to the best of our ability.

XX

THE ELLIS DRIER CO.
Roosevelt Road and Talman Ave.
CHICAGO, U. S. A.

CIFER CODES

Use a good Telegraph Cipher Code, Prevent Errors, Reduce the Cost of Sending Messages and Prevent Contents Becoming Known to Agents.

Universal Grain Code, the most complete code published for the use of grain dealers and millers. Its use will reduce your tolls one-half. Its 150 pages contain 14,910 code words for grain trade terms and expressions; no two near enough alike to cause confusion. Bond paper, flexible leather, \$3.00; Book paper, board cover, \$1.50.

Robinson Cipher Code, revised, with 1912 and 1917 Supplements for domestic grain business. Bound in flexible leather, price \$2.25; cloth, \$1.75.

A. B. C. Improved 5th Edition, contains a complete set of five letter code words for every expression in the former edition. Any two of these words may be combined and sent as one word, reducing telegraph tolls 50 per cent. Price in English, \$18.00.

Miller's Code (1917), for milling and flour trades, 3½x6 inches, 77 pages, \$2.00.

Baltimore Export Cable Code, most popular and simplest code for export trade. Bound in red leather, third grain edition, 413 pages, size 7x9½ inches, \$15.00; fourth edition, for grain, stocks, bonds and general merchandise, 160 pages, 6¼x9 inches, \$15.00.

Cross Telegraphic Cipher Code, for provision and grain trade. 145 pages, bound in flexible leather, \$2.00.

Your Name in gilt letters stamped on front cover of any of the above books for 35 cents extra. Any code upon short notice.

Grain Dealers Journal

309 S. La Salle Street,

Chicago, Ill.

Supreme Court Decisions

"Shipment" is Delivery to Carrier.—Seller of carload of wheat complied with buyer's written instructions "for shipment" by delivery of the carload to railroad on such day, though car was not moved until subsequent day, the wheat being "shipped" by seller by delivery of carload to the carrier for transportation.—*Horne v. Daily*. Appellate Court of Indiana. 133 N. E. 585.

Carrier Liable to Payer of Draft on S/O Shipment.—Under C. S. §§ 290, 313, 317, one paying draft attached to a B/L for shipment made "order notify" acquires all the rights of the consignor in regard to damage to the shipment in transit, and may maintain any action against the carrier for all damages to the shipment while in transit.—*Watts v. Norfolk Southern R. Co.* Supreme Court of North Carolina. 110 S. E. 582.

Carrier's Duty to Provide Agent Service.—The facts considered, and held to justify an order of the Railroad and Warehouse Commission, requiring a railway company to enlarge its depot, construct a platform in connection therewith, and to provide agent service in an unincorporated village of 200 inhabitants, under the provisions of sections 4390 and 4391, Gen. St. 1913, where the traffic amounts annually to \$8,000 or more.—*Citizens of Hines v. Minnesota & I. Ry Co.* Supreme Court of Minnesota. 186 N. W. 797.

Priority of Freight Charges during Government Control.—Claims for the freight charges on goods transported between January 1 and March 21, 1918, by railroads taken over by the government, are "debts due the United States," within Rev. St. § 3466 (Comp. St. § 6372), relative to priority in the payment of such debts, since the government took over the roads as going concerns, including sums due and daily becoming due for transportation furnished.—*Davis, director general, v. Pullen*. U. S. Circuit Court of Appeals. 277 Fed. 650.

Agricultural Liens.—A trust deed, executed by a landowner, conveying both the land and the crop then growing thereon to secure the payment of a note, part of the proceeds of which were used in making the crop, but which deed did not on its face show the debt was other than a simple debt, and which was registered in the book for trust deeds, and not in that for agricultural liens, was not an agricultural lien, and a subsequent agricultural lien has priority over it in distribution of the proceeds from the crop.—*Williams v. Davis*. Supreme Court of North Carolina. 110 S. E. 577.

Liability of Telegraph Co.—Telegraph companies engaged in interstate commerce being by Act Cong. June 18, 1910, § 7 (U. S. Comp. St. § 8563), brought within the act to regulate commerce, the liability for delay in delivering an un-repeated interstate message is that fixed in the

tariff schedule filed under authority of the act with the Interstate Commerce Commission, the amount received for sending it, and this though the sender had no notice of the limitation; the act superseding the common law and any state statute on the subject.—*Wynski v. W. U. Tel. Co.* Supreme Court of New York. 192 N. Y. Supp. 583.

Authority of Officers to Buy Grain.—In suit for corn sold to a grain company, wherein plaintiffs' testimony tends to show the contract was with the president, vice president, and another who was treasurer and director, evidence of a resolution prohibiting the business manager from buying except as instructed by the directors or on written permission of the president and vice president was inadmissible, since none of the men referred to in plaintiffs' testimony are included within the terms of such resolution.—*Schindler v. Producers Grain Co.* Kansas City Court of Appeals, Missouri. 237 S. W. 124.

State and Federal Control Over Freight Rates.—The Transportation Act of 1920 gives the Interstate Commerce Commission power to remove a general disparity between intrastate and interstate rates which operates as a real discrimination against, and obstruction to, interstate commerce, but does not give the Commission unified control of interstate and intrastate commerce, nor deprive state authorities of discretion to deal with intrastate rates as between themselves on the general level which the Interstate Commerce Commission has found to be fair to interstate commerce.—*Railroad Commission of Wisconsin v. C., B. & Q. R. R. Co.* Supreme Court of the United States. 42 Sup. Ct. Rep. 232.

Carrier's Notice of Arrival.—A request of the carrier by a consignee to mail to him the notice of the arrival of goods provided for in the B/L on which they were shipped does not make the postal department the consignee's agent for the receipt of the notice. Where a B/L provides "for loss, damage or delay, caused by fire occurring after forty-eight hours (exclusive of legal holidays) after notice of arrival of the property at destination has been duly sent or given, the carrier's liability shall be that of warehouseman only," the 48 hours does not begin until the receipt by the consignee of the notice.—*Ill. Cent. R. Co. v. Shaw*. Supreme Court of Mississippi. 90 South. 629.

Acceptance of Confirmation.—Where a telephone agreement for sale of a carload of wheat was confirmed by letter from the buyer, stating its terms, a letter soon after, from the seller, in answer to a letter inquiring when it would be shipped, stating the seller had sold the buyer a carload of wheat about the time of the telephone agreement, but, because the buyer had not shipped some bran previously ordered, "we did not feel like fulfilling our first agreement unless you did yours," and the seller thereby canceled all agreements, was a sufficient written acceptance of the buyer's confirmation to satisfy Rev. St. 1919, § 2170; there being only one car of wheat in controversy, and the contract as to the bran being a separate transaction.—*Rodney Milling Co. v. Farmers Elevator of Smithton*. Kansas City Court of Appeals, Missouri. 205 S. W. 237.

State and Interstate Rate Control.—The regulation of intrastate rates by the Interstate Commerce Commission to prevent discrimination against interstate commerce is not invalid as denying a state or its people of their property without due process of law, though a carrier within the state has a charter contract to perform the service at a lower rate. Where it was shown that the maintenance of passenger rates on a carrier between two intrastate points at the rate fixed by the carrier's charter, which was less than the interstate rates fixed by the Interstate Commerce Commission as necessary to give the railroads the return authorized by the Transportation Act, tended not only to divert travel to the border points, but also diverted it from other interstate railroads, and resulted in the loss of nearly \$12,000,000 in revenue that would be earned under the interstate rates, an undue, unreasonable, and unjust discrimination against interstate commerce was shown.—*State of New York v. United States*. Supreme Court of the United States. 42 Sup. Ct. Rep. 239.

THE FRENCH crop report shows the condition of winter wheat in that country on Feb. 1 to be 63, compared with 50 on Jan. 1, and 72 last year. Rye condition, 66, compared with 74 last year; and oats, 62, compared with 70 last year.

Seeds

SWEET CLOVER is said by the experiment station of the University of Illinois to be one of the cheapest sources of nitrogen.

CALDWELL, IDA.—The Idaho Seed Co. has been incorporated with capital stock of \$25,000 by F. L. Lilly, J. J. Marsh, and others.

GOSHEN, IND.—C. F. Troyer, of Middlebury, has bought the seed business of the Harper Seed Co. and will take possession May 1.

HEADQUARTERS will be established at Grand Forks, N. D., for the distribution of the seed grain loans for which congress recently appropriated \$1,500,000.

THE Doughten Seed Co., Jersey City, N. J., has registered "Faith" as trademark No. 157,212, and "Fame" as No. 157,213 for use with grass and field seeds.

MARSHALL, Mo.—The Marshall Seed Co. has been incorporated with capital stock of \$25,000. Incorporation papers name William H. Meschede as attorney.

BROWNSVILLE, TEX.—Frank Springer, of Gainesville, has bought the plant of the Armadillo Mills, which has been idle for some time. He will overhaul the buildings and use them in conducting a seed business.

MECHANICSBURG, O.—E. H. Pershing, a seedsman of Logansport, Ind., has been appointed personal representative of the receiver for the Wing Seed Co., and will divide his time between Logansport and the plant here.

A DEVICE consisting of the representation of a bee hive, with the words "Bee Hive Brand" below, and "Millard County Utah" above, has been registered as trademark No. 157,773 by the J. G. Peppard Seed Co., Kansas City, Mo., for use with seeds.

THE LONGEST apparently authenticated life in seeds is said to be about 150 years by Dr. George T. Moore, director of the Missouri Botanical Gardens, St. Louis. He declared that statements of instances where seeds taken from Egyptian mummy cases have germinated after some 2,000 years are but fables and myths.

GREAT FALLS, MONT., Apr. 1.—In some localities there is a shortage of wheat suitable for spring seeding, but this condition does not prevail over any large area. Federal aid is available for those communities where successive crop failures from hail and drouth have left the farmers without sufficient seed. Flax at present prices should be a remunerative crop in this state, and we are urging the increase of the acreage.—J. Watkins, sec'y Northwestern Grain Dealers Ass'n.

Receipts and Shipments of Seeds.

Receipts and shipments of seeds at the various markets during March, compared with March, 1921, were as follows:

	FLAXSEED.		—Shipments—	
	1922	1921	1922	1921
Chicago, bus.....	47,000	45,000	2,000	8,000
Duluth, bus.....	126,424	46,617	125,392	50,594
Ft. William, bus.....	158,273	279,815	81,208	95,149
Milwaukee, bus.....	40,010	20,700	43,175	.....
Minneapolis, bus.....	254,240	421,260	95,250	61,560
CLOVER.				
Chicago, lbs.....	2,448,000	4,662,000	2,414,000	2,514,000
Milwaukee, lbs.....	436,399	872,921	2,180,170	1,647,565
New York, bags.....	.....	.....	7,112	.....
Toledo, bags.....	4,379	11,931	12,852	19,544
TIMOTHY.				
Chicago, lbs.....	2,828,000	4,056,000	5,187,000	5,387,000
Milwaukee, lbs.....	341,001	979,286	1,044,705	304,381
New York, bags.....	1,970	.....	4,882	.....
Toledo, bags.....	541	1,030	2,035	14,820
OTHER GRASS SEEDS.				
Chicago, lbs.....	3,134,000	1,955,000	1,698,000	4,884,000
KAFIR AND MILO.				
Kansas City, bus.....	391,600	568,700	309,000	364,000
Los Angeles, cars.....	88	179	.....	.....
St. Joseph, bus.....	1,500	.....	.....	6,000
St. Louis, bus.....	88,800	149,400	21,320	47,130
Wichita, bus.....	14,400	18,000	14,200	18,000
OTHER SEEDS.				
San Francisco, beans, sacks.....	73,076	51,518
Toledo, alsike, sks.....	2,072	3,052	2,755	2,539

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References: Any bank, mercantile agency, commission firm or the editor of this publication.

THE creation of a government corporation with capital stock of \$500,000,000 to make loans direct to farmers is contemplated in a bill recently introduced in congress by Rep. Lankford, of Georgia.

A request recently came to the University of Illinois from Cairo, Egypt, for seed corn. This is the third time in as many years that the University has sent seed corn to Egypt for testing, and this year the request was for 2 of 3 varieties ordered last year.

From the Seed Trade.

Clover Prospect Good.

Mishawaka, Ind.—Young clover looks fine. An unusual amount of red clover sown, while sweet clover is being purchased by many farmers.—Grange Elevator Co., A. E. Castleman, mgr.

Millet Crop Light.

Holyoke, Colo.—Our millet crop was very light, being hardly 10% of the previous year's crop. A large quantity of common millet was carried over, but not much of it is left.—Reimer-Smith Grain Co.

Need Better Weather.

Toledo, O.—April clover price is dependent on the cash demand. Unfavorable weather for seeding such as the past week may defer purchases. Warm weather and old King Sol on the job makes trade lively. Season will be late if poor weather continues and demand could last until late in April.—Southworth & Co.

Clover and Timothy.

Toledo, O.—March clover and timothy seed passed out quietly. Some shorts waited until the last minute, but were accommodated by cash houses. Weather conditions have been bad and trade has been late. Will April develop a big cash demand? Stocks here are small and can easily be cleaned up. Eastern dealers have bought some April which will be shipped. October clover has found some investment demand around \$11. Cash houses have been buyers on a scale down. If cash demand during April should be slow, some hedging pressure might appear in the October.—The C. A. King & Co.

Flaxseed Business Light.

Minneapolis, Minn.—Although the stocks of both flax and linseed oil are low, there does not seem to be much anxiety on the buyers' part to cover their spring and summer requirements. Argentine flax has been offered in larger amounts during the past week and at some concession as to price. Argentine shipments total 458,000 bus. The domestic markets continue fairly firm. The trading is very narrow and even a small order may put the market up or down several cents. The demand for cake and meal is slowing up with the approach of spring, but with the mills either shut down or running at reduced capacity the offerings are sure to be very light.—Archer-Daniels Linseed Co.

Would Reimburse Seed Loan Borrowers.

Under a bill recently introduced in congress certain farmers who took advantage in recent years of the government's seed loans would be reimbursed for the amount which they repaid.

The loaning plan was inaugurated in 1918, but in June, 1920, a provision was incorporated in the agricultural appropriation bill releasing all borrowers whose crops had yielded only 5 bus. or less per acre. However, some farmers whose yields were 5 bus. or less had already repaid the loans, and the recent proposal is made for the purpose of reimbursing them.

The amount of the reimbursements called for is \$68,249.07. It is said there is an ample amount in the loan fund to make the payments, and the Federal Farm Loan Bureau, under whose direction the loans were made, has recommended that the bill be passed.

Farmers will soon be so dependent on Uncle Sam they will cease trying to do for themselves.

LOANS for agricultural purposes had been approved by the War Finance Corporation to Mar. 31 for a total of \$272,575,577. Loans for export purposes were \$50,250,120.

Books Received

THE PUBLIC REFUSES TO PAY is a compilation of hundreds of cases in which the closed shop, the U. S. R. R. Administration national agreements and labor union rules have operated to cut down production, increase the number of men employed to do the same work and increase the cost of the product anywhere from 50 to 400 per cent. Shippers of grain will understand where some of their money goes by reading one case reported in this pamphlet: A young woman in a New England railroad shop in 1917 was cleaning brass at 22 cents an hour. The railway wage award lifted her compensation to 52½c. She was entirely satisfied. Then the shop com'ite without her authorization declared her's to be a mechanic's job and obtained her reclassification to 68 cents an hour, and she was awarded \$227.75 back pay at the new rate. Later another labor board increase put her wage up to 85c, about 4 times what she received in 1917. Small wonder that ex-service men would like to participate in such adjustment of compensation by Government fiat. While replete with these cases the pamphlet fails to suggest a remedy. By F. Lauriston Bullard, the Marshall-Jones Co., Boston, Mass. Price, 50 cents.

More Investigation of European Corn Borer.

The U. S. Dep't of Agriculture is shortly to begin a new investigation into the work of the European corn borer. A special effort will be made to determine how the insect makes its way from Canada, where it is numerous, to the southern shore of Lake Erie. Its spread is so uniform over a narrow strip extending practically the whole length of the lake that it is believed the moths fly across.

Promises Peonage for Tax Payers.

In an open letter to farmers, Frank Ralednis recently wrote in the Howells (Nebr.) Journal that:

"The Board of Trade or Exchange is simply a building designated where traders meet. These traders assemble and draft rules and regulations consistent with the laws of our country with a paramount duty to engage in an honorable business judiciously, economically, having due regard for the protection of all classes of people. To make the story short, 'wolves in sheeps' clothing' lurk everywhere. To find and ostracize them is a task, and if our government will continue to enact legislation, investigation and regulation we will have an increased army of the guardians of law and taxes, that our posterity will pay for in peonage.

"What I am trying to get at is 'Is a speculator a detriment to you?' Brains and wits are unnecessary to tell the truth. Yet when you mention 'speculation or gambling in the bread of the common people' you find a misleading logic which is misleading, and so often well-meaning leaders of farmers and politicians do not care to recognize the truth even if they should see it, because they are not interested in the truth. Our own congress ruled that the system of grain handling was gambling and passed the Futures Trading act, known as the Capper-Tincher bill that is demoralizing our environment. Allow me again to repeat the experience of brewers and distillers.

"If you were a grain merchant or speculator in good sound health and mind, would you purchase grain in face of government regulations, or a gigantic scheme such as the 'five year contracts and ten dollars' that will put you out of business? The farmer is simply taking on additional burdens and jobs, entrusting his labors, wealth and all into a pool. Sooner or later stagnation will set in. No greater truth can be written than, 'No one works as hard for you as you do yourself.'"

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Patents Granted

1,409,228. Seed Corn Rack. Clyde R. Marshall, Cedar Rapids, Ia. Chains are disposed across a collapsible frame which has supporting means, and ear supporting means are carried by the chains.

1,409,564. Antismut Grain and Soil Treating Process and Apparatus. John H. Mitchell, Price Creek, Colo. The planting device comprises a source of supply for a liquid fungicide, which is sprayed upon the seed while it is in motion to the soil.

1,408,978. Grain Polishing Device. William C. Brenner, Evansville, Ind. The device embodies spiral conveyors, shaped discs and a pipe to which steam may be supplied. The grain is supplied to the outer ends of the tubular shafts which house the conveyors, and a casing which surrounds the discs is provided with a V-shaped outlet.

1,409,589. Door Space Closure for Freight Cars. John W. Rusch, Buffalo Lake, Minn. A plurality of panels are adapted to span the door space, and mounted for movement crosswise of the space, independently or two or more thereof while jointed together. An automatic locking device engages with the panels to hold them in their idle or their door spanning positions.

1,409,144. Method of Dry Pickling Seed Grain. A. A. Lawrence, assignor to John Fox, Regina, Sask., Canada. The grain is placed in a container and covered, and a relatively large, perforated, active fumigator is placed upon the floor of the container and within the body of grain. Gas, generated within the fumigator, escapes thru the perforations and into the grain.

1,409,642. Grain Weigher. Fred J. Ashwell, assignor of one-half to Forrest L. Langdon,

Grain Spout Holder. Earl C. Starnes and Edward C. Willis, Alpha, Minn. A staff has at one end a sharp metallic hook, and in its body two spaced apertures, one of which is near the hook. A rope is passed thru the apertures. The spout is attached to one end of the rope in position to be drawn by the rope toward the aperture nearest the hook. The other end of the rope is readily securable to the staff near the other aperture.

1,410,022. Car Pusher. Roy A. McCune, East Pittsburgh, Pa. A base is adapted to ride on top of the track rail and it has pivoted to it a pair of clamping jaws provided with tapered apertures adjacent their upper ends. An operating lever is fulcrumed on a pin mounted in the apertures. A pusher shoe is mounted on the forward end of the lever, and a wedge member is adapted to be moved forward by the lever to engage and hold the car wheel in moved position.

1,409,998. Process for Manufacturing Livestock and Poultry Feed. Frederick A. Cooley, West McHenry, Ill. The process consists of first mixing the ingredients and reducing the mixture to a granulated form, then mixing it with a liquid to produce a mixture of plastic consistency. The plastic mixture is passed between two opposing surfaces, one of which is a molding surface and both of which are heated. This forms the material into comparatively small hard pieces and it is then passed over a flat heated surface for complete drying before discharge.

1,410,743. Outlet Device for Grain Cars. Henry G. Ferguson, Hutchinson, Kan. The car is provided with a discharge opening in its floor, and a metal door frame is arranged in the opening flush with the top of the floor. A horizontally movable door is mounted in the door frame to close the opening. This door is provided with a locking device comprising a keeper extending from the outer end of the door frame, which acts with a flange extending downwardly from the outer end of the door to receive the keeper. A locking pin is carried by the flange and adapted to enter the keeper.

Insurance Notes.

ILLINOIS had 2,197 fires in January and 1,916 in February. Of the January fires, sparks on roofs caused 946, while in February the same cause was responsible for 846 fires.

THE Supreme Court of Mississippi has set for hearing on June 14 the anti-compact suits against fire insurance companies doing business in that state. A decision is not expected before fall.

LANSING, MICH.—The Michigan Anti-Discrimination Commission, composed of the governor and other state officials, will hold a hearing Apr. 24 to consider further the application of fire insurance rates in the state.

FIRE LOSSES in the United States have increased alarmingly in recent months, according to figures of the insurance companies. In December the destruction represented value of \$24,294,300; in January, \$29,122,000; and February, \$30,854,400.

THE RECORD of the Tri-State Mutual Grain Dealers Fire Ins. Co. shows that, with the exception of one year in which no fire occurred, the smallest annual loss was \$2,242. The highest was \$29,349; while the average annual losses have been \$11,546.

I AM beginning to realize the importance of exposure protection. Our experience shows that we have many losses from this cause and I seriously doubt the adequacy of our exposure charge in the schedule of basis rates.—L. H. Baker, Ass't Sec'y-Treas., Michigan Millers Mutual Fire Ins. Co.

At the midwinter meeting of the National Ass'n of Insurance Agents, held recently, action was taken practically withdrawing opposition to the Underwriters Grain Ass'n. The pres. of the Milwaukee Board, as well as the pres. of the Illinois Ass'n of Insurance Agents, agreed to the action. It was stated that the opposition was started after the views of local agents had been obtained, and without taking into consideration the wishes of the owners of terminal elevators or going into the question fully with the insurance companies.

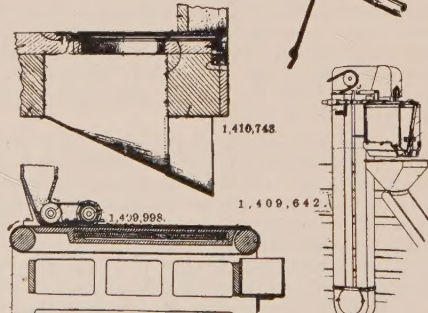
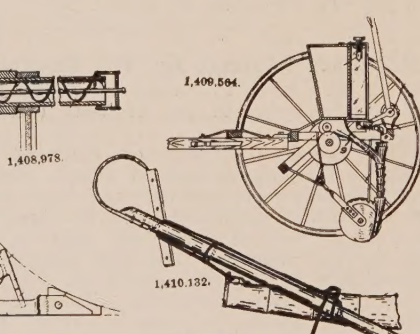
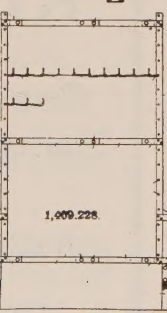
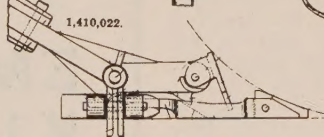
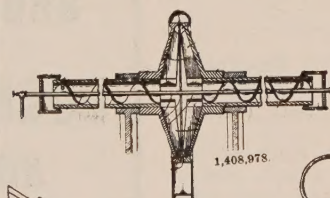
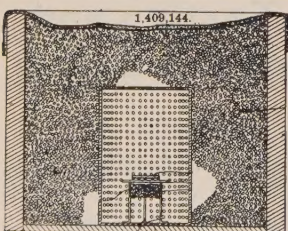
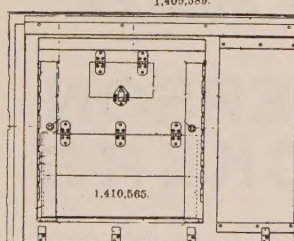
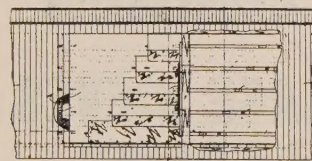
OFFICIALS of the Nebraska Fire Prevention and Conservation Ass'n are reported to be so disgusted with the lack of interest shown in the work that they may abandon the campaign. At Grand Island, a meeting had been scheduled recently, and H. N. Wood was to be the principal speaker. Only 4 persons, exclusive of the local insurance agents, were present, altho the population of the town is 13,000. Fire prevention is a matter that must have the interest and support of property owners if we are to decrease the rate at which our resources are being destroyed.

Elevator Fires Not So Intelligent.

One wing of a large industrial building had burned. The destroyed wing had been connected to the remainder of the plant by a passageway which was closed at either end by a gate, and as the manager and several employees surveyed the ruins the official remarked:

"It's strange the fire should have stopped at that gate."

"Why, don't you know sir!" one of the office boys exclaimed. "The gate was closed!"



Kansas City, Kan. A hopper is divided into two compartments by a partition which carries a pivoted wing, and a pivoted valve carried by the bottom of the hopper connects with the wing whereby the valve may swing the wing in alternate directions. A lock on the wing engages a detent to hold the valve temporarily in fixed position.

1,410,565. Grain Car Door. John L. Guerrant, Sedalia, Mo. A door is slidable across the inner side of the door frame, and has a relief door swingable outwardly within the door frame above the sill. A locking bar is mounted for swinging and longitudinal movement, to swing against the doors. The sill has a recess over which the relief door is swingable when opened, and arranged to receive the lower end of the bar when it is swung against the doors. The bar then resists the pressure of the relief door.

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can doubly protect you against fire. An unusual protection is offered you. First, in providing sound indemnity to pay for fire loss by insurance in the Hartford Fire Insurance Co.,—second, in searching out and removing fire hazards so as to reduce the danger of fire in your mill or elevator.

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